Clinical Lecture
ON THE
TREATMENT OF CARBUNCLE.

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(Shorthand Report, revised by the Author.)

GENTLEMEN,—You have recently had the opportunity of seeing four cases of carbuncle treated in my wards after methods which you would probably describe, if asked to do so, by saying that "nothing was done for them." Here are the patients' papers; and there is, to be sure, no medicine set down for them to take, and you know that no surgery was inflicted on them,—and yet a good deal was done for them, though the treatment was what does commonly pass by the name of "doing nothing." They were carefully fed, washed, cleaned, and bedded; and their carbuncles were very skilfully dressed and washed with proper things, and every care was taken to shut out all untoward influences from them. And if any complication in their cases had arisen, these would have been immediately met. But no complications occurred; and, therefore, the cases passed through their course without treatment, as it is said—that is, without medicine, and with no surgery, no active surgery, no incisions or anything of that kind. And since all these cases passed through their course very favourably, and all the patients were, or will be, discharged at a comparatively early time after their admission into the hospital, I will take this occasion of giving you some observations on the manner of treating this disease.

Although you may not have seen much of it, you must all have heard of the ordinary manner in which carbuncles were treated formerly, and still are by some; a method which consists mainly in making large incisions through them, and giving very large quantities of food and stimulants, as well as considerable doses of quinine, bark, and other tonics. I do not at all mean to say that the things which in these cases I left undone would have done any harm; but what I hold of them is, that they would have been quite useless, and some would have been sources of great discomfort to the patients. And in the way in which I speak of these things you may notice that I exemplify that rule which I have always impressed upon you, of asking yourselves, when you seem to have been successful with some medicine, "What would have happened if I had not given it?" The apparent consequence of giving a medicine may be plain enough; but you cannot too often repeat to yourselves the question—as a rule, I will not say of practice, but of the study of your own practice,—"What would have happened if this or that, which seems to have been successful, had not been done?"

First, with regard to the incisions made in carbuncles. The ordinary plan, still recommended by some, is, as soon as a carbuncle is seen, to make two incisions crucially from border to border. It is said that they must go even beyond the edges of the carbuncle into the adjacent healthy textures. I have not followed that method of practice very often, but I have followed it quite often enough to be sure that it does not produce the effects which are commonly assigned to it. It is commonly said that if you will thus make crucial incisions into a carbuncle, you will prevent it spreading. If you can find a carbuncle two or three days old, and cut that right across in both directions, I think it very likely that you will prevent it spreading. But even therein is a fallacy; for there is no sign by which, on looking at a commencing carbuncle, you can tell whether it will spread or not, whether it will have a diameter of an inch, or of three, six, or ten inches. The question, therefore, that I spoke of comes back, "What would have happened if I had not made these incisions?" And the answer to that question will be rather according to temper than according to knowledge. For as I watch men in their conclusions upon such cases as that, I generally find that self-satisfaction says, "I saved the man's life;" self-dissatisfaction, "I did him no good." The truer scientific temper stands midway, and says, "I will wait for further information on the matter—till I have seen more cases, and then decide whether, in the earliest stages of carbuncle, incisions are useful or not." After this time of three or four days I have seen sufficient numbers of carbuncles thus divided, and have divided enough for myself, to say that it will not hinder the spreading. I have seen carbuncles spread in as large a proportion of cases after incisions as in cases that have never been incised at all. I have in my mind a striking case that occurred to me early in practice, when I followed the routine, and, in a friend of my own, divided a carbuncle most freely. I cut it after the most approved fashion in depth and length and width, and then it spread. After two or three days more all the newly-formed part was cut as freely as the first, and then it spread again, and again it was cut as freely. Then it spread again, and was not cut. Then, in a natural time, it ceased to spread, and all went on well. These are only general impressions that I give you, because one cannot count the cases in which cutting has been practised, and those similar cases in which it has not; nor even then could it be said whether those in which the cutting was practised would have spread if left alone. On a very strong general impression, however, I say that carbuncles will spread after cutting in as large a proportion of cases as they will spread in without cutting.

Then it is said that carbuncles are relieved of their pain if they are thus very freely cut. Here, again, however, is only a partial truth. A carbuncle of two or three days' standing, which is hard, tense, and brawny, is very painful; and cutting it will relieve, in many cases, a considerable portion of the pain. But after this, when the carbuncle begins to soften, and when pustules begin to form upon its surface, and pus in its interior, it ceases to be painful of its own accord, and without incisions. Thus there are two distinct stages of carbuncle in reference to the pain; the early stage, when it is hard and still spreading, and is generally intensely painful, and the later stage, in which that pain nearly ceases. A carbuncle divided in the first stage, in the first two or three days of its existence, may be relieved of some of its pain; if divided in the later stage, what little pain may exist is altogether unaffected by the cutting. And even cut as you may, you cannot always put aside the extreme pain that a carbuncle sometimes has, even to its later time. Some two or three years ago, I was called to a member of our profession with a large carbuncle in the middle of his back. His friends had been much alarmed about the state of his mind, for he had been suffering great mental anxiety for some time, and they were in fear lest the excessive pain of the carbuncle should, in its disturbed state, do his mind permanent damage. So they persuaded me to cut it, and I cut it after the old plan, very wide across, and far into the adjacent textures, as freely as could be. It did not in the least relieve him. I never saw a carbuncle through its whole course so painful as that was, and up to the last, till the healing was nearly completed, he suffered more or less pain in it. So that the conclusion in reference to pain must be this: if they can be divided in the first three or four days, while still hard and brawny, it may relieve some measure of the suffering; at a later period the incisions have no influence at all.

The third point is stated thus, that by the incision of carbuncles you accelerate their healing, giving facility for the exit of sloughs. But herein is the greatest fallacy of all. When the cutting of carbuncles was more customary in this hospital than it is now, when I did not cut them, and some of my colleagues did, I used to be able to compare the progress of cases cut and of cases uncut, and time after time it was evident that the cases uncut healed more readily than those cut. A man who is now in the hospital I have brought round here that I may illustrate this point to you. This is the man, Timothy C——, aged fifty-five. When he came in, his carbuncle had a length of more than six inches, and a breadth of three and a half; and it formed the ordinary hard, compact, tense, and brawny mass that a carbuncle usually does. It had at that time already taken to suppurate, and little pustules were pointing on the surface. If I had followed the practice of incisions, I should have had to make a cut in one direction of about seven inches, and in the other of about five, and after that I should have had not only the wounds wide, open, and gaping, and having

themselves to heal, but a great part of the substance of the carbuncle fairly exposed, and also under the necessity of healing. But you will observe that the whole of the space that now remains to heal is a series of openings in the middle of the carbuncle, through which the sloughs are to be separated, through which, indeed, nearly the whole of the sloughs have already been discharged, and which now merely remain to be healed like the cavities of small abscesses. In that way you narrow greatly the extent of wounded surface to be healed. Indeed, it by no means always follows that the whole carbuncle, or its whole base, sloughs. Carbuncles, if not divided, not unfrequently only suppurate about their centres, and slough only in their central parts, and the borders merely clear up by the softening and dispersion of the inflammatory products in them. In every case of that kind you save greatly the amount of healing which has to be gone through. Nay, in some cases carbuncles completely abort. One of these cases, of which I have the paper on the table, was that of a woman, aged sixty-four, who came in with a carbuncle nearly as large as this, in a condition which, it might be said, required incision at once; but, with the exception of two or three small points, no suppuration or sloughing ensued. That carbuncle dispersed, aborted, cleared away. This case shows the more ordinary course of events—the sloughing of the central part, the gradual discharge of the sloughs, and the comparatively small spaces which are left in the centre of the carbuncle as the sole space in which the process of healing has to be achieved.

On these three points, which are the grounds that have been assigned as reasons for cutting carbuncles, I have now given you the evidence on which I have ceased from the practice. I fully believe that crucial incisions do not prevent extension; that it is only a limited set of cases in which the incisions diminish pain; and that with regard to the time that is occupied in healing with or without incisions, the healing without incisions is very clearly and certainly a great deal the quicker.

The kind of incisions that I have been speaking of is the old plan of crucial incisions. Another method which I have occasionally tried, but of which I can only state the same general results, is that of subcutaneous incision. This has been supposed to have the same general effect as the other; and I think that the same general conclusions may be drawn respecting it: that it is a measure unnecessary in the treatment of carbuncle, and that it retards rather than hastens the healing. When I speak thus of the incision of carbuncles, however, I do not mean to say that there is no condition of carbuncle in which an incision is not useful. Sometimes a carbuncle sloughs in its central part, with one continuous slough of integument holding in a quantity of pus. In that case you would cut through the slough, or through any adjacent part of the carbuncle, to let out the pus, as you would open an ordinary abscess. But this is not a measure which is commonly understood by the "incision of a carbuncle."

If you ask why one may not cut a carbuncle though it may do no good, I reply that you should never be actively useless, and that there are some cases in which the cutting does considerable harm. Carbuncles, for the most part, occur in persons broken down in health, exhausted by overwork, or by bad food, or in general deteriorated health—as sometimes in diabetes or albuminuria; and in all these states it is a good general rule to save the blood they need for healing. The loss of blood from the carbuncle itself would not be considerable; the hard substance of the carbuncle, when cut into, does not bleed, or bleeds but little. But to carry out the incision perfectly, you have to cut into the adjacent healthy texture; and this sometimes bleeds very profusely, so as to lead to all the distress and pain of plugging the wound with this or that substance to arrest the blood.

Another measure in the treatment of carbuncles which is supposed to be necessary, is very high feeding and large quantities of stimulants. I learned the opposite of this in one of those cases which you will do always well to study—those, namely, in which the patient refuses to do what you advise him. It is from such cases that we may often learn what is commonly called the "natural history of disease"—its course undisturbed by treatment. A case occurred to me once of an old gentleman, eighty years of age, who had a carbuncle, as big as it could be, on the back of his neck, for it extended from one ear to the other, and from his occipital spine to the third cervical vertebra. He measured it for his own amusement, and it was fourteen inches over its surface transversely, and nine inches vertically—a carbuncle, then, of the largest size, and one, it might have been supposed, attended with considerable risk to life. I urged him very strongly to take a large quantity of what is called "support," for I was at that time under an impression of its necessity. He absolutely refused, however, and nothing would induce him to take it. I was therefore content to stand by and study the natural history of disease in this huge carbuncle; and the natural history of it was a history that one would have wished to witness in every carbuncle of its size, for no case could pass through its course in a better method. He led his ordinary abstemious life, took moderate quantities of food and of stimulant, lived through a carbuncle of the greatest severity, and finally made a complete recovery, and lived for several years after.

Another case which impressed me very much was that of a friend of my own in the profession, who had a carbuncle on the back of his neck, of very considerable size. Sir Benjamin Brodie and Mr. Stanley attended him with me, and under their advice the carbuncle was cut. I watched its course afterwards, and felt sure that the cutting had done neither good nor harm. It went on as carbuncles do when not cut. But the gentleman was subject to intense headaches, of which he knew by experience the only possible remedy was almost entirely to leave off food, and absolutely and entirely to leave off stimulants. One of these headaches occurred during the course of the carbuncle, at a time when we had put him upon very full diet and abundant stimulant. He said then that he must leave off his stimulants and food, and we looked with some alarm at what would be the result on the progress of the carbuncle. I remember Mr. Stanley saying to him, in his distinct manner, "My dear fellow, if you don't take food, you will die." "Very well," he said, "then I will die, but I will not take food and increase my headache." According to his own wish, therefore, we reduced his diet to a very low level. The course of the carbuncle was not affected at all, unless it were for good; and after three or four days of this, which might be called comparative starvation, he described himself in his own emphatic fashion as being "as jolly as a sand-boy."

Since that time I have watched carefully all cases that I have seen, and I am certain that there is no good to be obtained by large feeding or abundant stimulants in ordinary cases of carbuncle. The whole of these cases that have been in the hospital were put on our ordinary meat diet, with a pint of porter daily; and I see that two of them have had four ounces of wine a day, one of these being a person aged sixty-four and the other sixty-three, and both having carbuncles of considerable size. You will find that for patients in private life it will do very well if you tell them that they may have about two-thirds of their ordinary amount of food, and about the same proportion of their ordinary quantity of stimulants. But indeed there is scarcely any reason to change in any material degree the ordinary mode of life of a patient with carbuncle. So far as he can with comfort take that to which he is accustomed, so far he may. If his diet has been habitually low, so it may remain; if habitually high, so, within certain limits and somewhat reduced, it may still remain.

Now you may ask what I should set down as the things to be done for a carbuncle. These boards, nearly bare as they are, may tell you. In local treatment one of the best things you can do, if the carbuncle is small, is to cover it with emplastrum plumbi spread upon leather, with a hole in the middle through which the pus can exude and the slough can come away. That, occasionally changed, is all the covering that a small carbuncle will need. It is difficult thus to cover the whole surface of a large carbuncle, and to keep it clean; therefore, I think that the best application for that is the common resin cerate. This should be spread large enough to cover the whole carbuncle, and over it should be laid a poultice of half linseed-meal and half bread. And, if you want to exercise your skill, learn to make that poultice well, and to put it on well, and to keep it in its place well. That mode of dressing the carbuncle, so far as the materials are concerned, will last through its whole course; but whilst the carbuncle is making progress and discharging its slough, you will find plenty of room for

the exercise of considerable skill in dressing it, and filling up the cavities with soft substance spread with this ointment. Besides this, the carbuncles are to be carefully washed, especially with some deodorising substance, as Condy's fluid, or weak carbolic acid, and the cavities may be syringed out with it. The importance of cleanliness is very great. You noticed in the man whom I showed you just now the spots of acne and boils around the edges of the carbuncle. This points out the necessity of care, which I suppose had not been taken there, to keep the surface of the skin adjacent to the carbuncle perfectly dry, and free from any contact with the discharge, which seems really to have the power of infecting the neighbouring skin, and so producing the boils which are apt to arise, sometimes in clusters, around the carbuncle. Of diet I have already spoken to you. Of medicines I say nothing. Quinine, bark, and other medicines of that class, may be given if you please, or in case of evident need, and so may aperients; but there is really no need of them in an ordinary case of carbuncle. But there is one medicine which you may find very valuable, and that is opium, especially in all the earlier painful stages of carbuncle, in which it relieves the suffering as thoroughly as incisions, or anything I know. After the early stages, even that is unnecessary, except for some patient who may be unable to sleep.

But there is one measure in the treatment of carbuncle which is seldom employed, and yet is of great importance, and that is letting the patient have very free air. The general idea that carbuncles are very dangerous diseases has commonly led to the patients being entirely confined to bed and kept shut up in their rooms. There is in that an unnecessary care; and this, too, I learned from a patient who refused to comply with injunctions—a gentleman with a large carbuncle on the back of his head, who would not keep his bedroom. He had been accustomed to an active life, and after seventy or eighty years of that custom he was quite indisposed to remain in his room. So with that carbuncle he daily came down stairs, changing his room and moving about the house as well as the pain and weakness would allow him. No carbuncle could go on better; all the stages were passed through without any risk or trouble, and it healed with unusual speed. After that I had a yet more striking case. A lady came to London "for the season," as she called it; and she had not been here more than a week or ten days before a carbuncle came out on the back of her head, just under her hair. It was a great vexation to her that she had to give up all her amusements; and so, as she did not mind the pain, she would go out. And it was then that, for the first time and the last, I saw any value in a "chignon." She dressed her carbuncle under the chignon, and she went to the park, to the theatre, and to dances unharmed, and with her carbuncle quite unseen, and no trouble whatever followed. It healed up after the ordinary fashion in about the ordinary time. But, indeed, you may see cases of this description on a much larger scale if you watch the carbuncles that come to us in the out-patients' room. There we often see them of considerable size, and they do as well among the out-patients as among the in-patients; and yet these out-patients are freely in the air all day, and many of them continue at their work. So you may set it down as one point to be attended to in the management of carbuncles that patients should not be confined to their room. They should at least have change of air in their own house; and, unless they are too low, they should not avoid exposure to the fresh open air.

Treating your cases of carbuncle upon this plan, I believe you will find that the great majority will pass through their course well. I cannot tell you what the ordinary proportion of deaths from carbuncle is; but I know that carbuncles are commonly looked upon in the profession as dangerous things, and a large carbuncle on the back of the head is considered to be fraught with risk to the patient's life. But that is very far from being the case in my experience. Remembering, as far as I can, or rather guessing at the number of carbuncles I have had to treat, I should say that there is no other disease of the same extent and general severity which is attended with so little risk to life. During twenty years of hospital and private practice, I cannot have treated less than 200 carbuncles; and of these 200, four have died, giving a mortality, at a fair guess, of only two per cent.—a mortality which is less than that of most of the minor operations of surgery, and less really than that of any disease of equal severity that you can name. Of those four deaths, one occurred in a patient aged seventy-eight, who died of erysipelas after the carbuncle had nearly healed. Another was a gentleman of about fifty-five years of age, who died of chronic pyæmia. The third was a gentleman aged fifty, who died with acute pyæmia. And the fourth was a patient of about fifty years of age, who died rapidly exhausted. The first three were from causes which may almost be called accidental; for so we call them when occurring after an operation, and it would be unreasonable to suppose that any other method of treatment would have averted the consequences. The other died, possibly, on account of the deficient stimulation; for he was a man who had lived freely, and took during treatment less than he had been accustomed to have. The main point, however, to which I wish to direct your attention, is that the mortality may be as little as two per cent. I cannot doubt that the mortality was considerably larger when carbuncles were severely cut; for the severe cutting meant often severe bleeding, and was attended with all the consequences of large wounds. Thus, though I do not know the exact proportion, I believe that the general reputation of the danger of carbuncle was well founded, and that among the reasons for the diminished mortality of carbuncles may be set down as chief, the more frequent avoidance of the custom of cutting them.

Speaking of the mortality of carbuncle, however, I must remind you that I am not speaking of a disease which sometimes passes under the name of carbuncle—the carbuncular inflammation of the lip which sometimes occurs in young persons: a disease which you may not have seen, and may pass many years without seeing. It was described by a former house-surgeon of this hospital, Mr. Harvey Ludlow, as malignant pustule of the lip. Dr. Budd, of Bristol, has also so described it. Commencing at one spot, inflammation of the whole lip follows and spreads to the face, and then disease of the lymphatics ensues, with pyæmia as its consequence. It is a disease so unlike carbuncle that it ought not to be known under the same name. It seems to me not like the accounts given of the malignant pustule abroad, and I have seen no other disease like it in England. It attacks especially young persons from fifteen to twenty-one; and of fifteen cases that I have seen, only one recovered. That disease is not carbuncle, nor is the mortality of that disease to be counted in estimating the mortality from carbuncle. Ordinary carbuncle on the lip and face has none of those special characters, and is not more fatal in those situations than in any other.

Abstract of a Lecture

ON THE

USE OF BRUCINE IN STOMACHAL EPILEPSY.

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A LARGE proportion of the cases of epilepsy have, as an aura, or warning of the coming fit, some disturbance referred to the stomach—such as nausea, attacks of flatulence, undefinable sensations, represented as rising upwards, and consciousness ceasing when the sensation reaches the head; and these are the cases, also, in which vomiting follows the fit. The vomited matters always contain food, and sometimes in an undigested condition, although some hours may have elapsed since the last meal. There may be no proper symptoms of dyspepsia in the intervals between the fits beyond a constant disposition to the generation of flatus, indicating permanent disorder of the ganglionic nerves. The functions of the pneumogastric, moreover, become perverted; and the cause of this may be at the root of the nerve, or at its periphery. Supposing disorder of the centre

to be the starting-point, then perversion of the normal function of the nerve at its periphery in the stomach (and also sometimes elsewhere) is its natural expression. But supposing the nervous centres to be only in the usual condition belonging to epileptics—not healthy, but in a morbidly irritable state,—then a temporary disorder, produced by undigested or indigestible food, in its peripheral branches, will increase centric disturbance, cause reflex contraction of cerebral bloodvessels governed by vaso-motor nerves, and an explosion in the shape of a fit.

The same argument applies to disorder of the small intestines, the splanchnic nerves furnishing the medium of communication between the mucous membrane and the reflex centres. The fit in that case is usually followed by diarrhœa, and not by vomiting. Such cases as these are not best treated by bromide of potassium alone. One of the bad effects of this drug, perhaps the only one caused by the bromide even in moderate doses, is what we call the bromide dyspepsia. The objective symptoms are foul breath, a white tongue, involving the edges as well as the dorsum, and not necessarily furred, with great languor and sleepiness. Anorexia must be added to the list. It will be found that when such a condition exists there will be an accession of fits, although up to the time of the stomachal disorder the attacks may have completely ceased.

Under such circumstances your best proceeding will be to use any ordinary alterative aperient with effervescing salines, and when the colour of the tongue has returned—and by that time the other symptoms I have mentioned will have disappeared also—then to recommence the bromide treatment in conjunction with lactate of soda, in a dose of from five to fifteen grains, in some bitter infusion, the best of which is the infusion of chiretta. I prefer chiretta because it acts as a cholagogue, and the only objection is that it occasionally produces diarrhœa. You may give the bromide for a long period in this combination without having to suspend it on account of the "bromide dyspepsia."

Now a suspension of epileptic attacks is, for many reasons, always desirable. Yet suspension is not cure; and, for the most part, when you cease to give bromide of potassium, the attacks return. Can we prevent these? I think we can often do so by building up the patient, by using means to improve the nutrition of the tissues, of the nervous masses, and of the ganglionic nerves especially; for I hold that a convulsion is an impossibility in a perfectly healthy brain and nervous system; and I think these views should form the basis of all treatment. Is there any tonic remedy of value for this purpose? I think so; and I have found the best in brucine,—beyond many of recognised value. Mr. Tyrrell (of Malvern) has published some cases treated successfully by strychnine. I have used this drug extensively, and when the patient can remain under close observation, or if he be attended by intelligent friends, I should not hesitate in proper cases to recommend its use. But there are cases of idiosyncrasy, and small doses will sometimes evoke disagreeable toxic symptoms. I have not been annoyed in this respect with brucine, perhaps because it is a weaker alkaloid, and the patient gets more easily accustomed to its use. Its physiological effects, however, so closely resemble those of strychnia, that it may be taken for granted their therapeutical virtues are the same. I usually order it in a solution made of the same strength as the liquor strychniæ of the Pharmacopœia, and commence with a dose of ten minims, to be taken twice daily; every third day an addition should be made of five minims to the dose, until from a third to half a grain is reached. If any stiffness of jaws or other toxic symptom appear, the dose is to be diminished by five minims, and continued until any new objectionable symptom is manifest; then it is again lessened. You will not find any benefit from either brucine or strychnine till a full dose is reached; often the reverse effect. As a rule, patients will take twice as much brucine as strychnine, without any necessity for diminishing the dose. After the continuous administration of brucine for a month, I think it well to suspend its use for some days, and then again resume it. I may remind you that Dr. Marshall Hall used strychnine in epilepsy, but he gave it in very small doses, and without success. Given in large doses, and with the precautions already mentioned, I have not met with any case suggesting cumulative action, or suddenly poisonous effect, from the administration of either alkaloid. You will find great satisfaction in giving bromide in large doses at bedtime, at the same time ordering brucine twice daily; thereby you ensure the sedative action of the bromide, and the tonic effect of brucine on the whole nervous system.

SCIENTIFIC INVESTIGATION INTO THE CAUSES OF CHOLERA.

(*Concluded from p. 41.*)

III. REPORT OF INTERVIEWS WITH PROFESSOR ERNST HALLIER, AT JENA, OCT. 1868.

BY

DR. D. DOUGLAS CUNNINGHAM

AND

DR. TIMOTHY LEWIS,

ASSISTANT-SURGEONS IN H.M. INDIAN AND BRITISH SERVICES.

PROFESSOR HALLIER received us with the greatest kindness, and endeavoured to show us his preparations and to explain his views as completely as possible; but he considered there was no time to do full justice to his plan of investigation or to the proofs of his opinions. It would require, he thought, at least two months' work for this.

I. *Apparatus which Professor Hallier employs.* — These are generally rather complex, as Professor Hallier's method of observation depends for the value of its results on the supposition that isolation is as perfectly secured as possible.

1. The large apparatus, as described in his "Gährungs-Erscheinungen," p. 14: It consists of a glass flask, fitted with two tubes, one of which is connected with the isolating media, whilst the other enters the receiver of a small air-pump, by means of which any amount of air can be drawn through the whole apparatus. He thinks that, if it were possible (i. e., if a sufficient number were at hand), only this kind should be used. He considers its great advantages to lie: 1st. In its being as perfect an isolator as is possible to be obtained without resorting to great expense. 2nd. In its affording means for the supply of as much air as may be thought necessary. 3rd. In enabling the material cultivated to be used in considerable amount, which he considers almost essential for good results. Of course it has the disadvantage of not providing any means for the continuous observation of progressive development, as the results of the cultivation in it can only be examined on breaking open the flask.

2. The small apparatus: This consists of a small bell-glass, communicating with the air by a bent tube, and standing in a basin of permanganate of potash. In this, as described in the "Gährungs-Erscheinungen," the substance to be cultivated is made to rest on a small glass or earthenware dish, so as to keep it out of the permanganate solution. (See Fig. 2, a.)

II. *The substrata which Professor Hallier employs.*

1. The freshly exposed pulp of a lemon, "which, as freshly exposed, may be presumed to be free from spores or fungal elements."

2. Thick starch paste, containing some salt of ammonia.

3. Solution of grape sugar.

4. Cork which has been previously soaked in alcohol. This is carefully dried, and "when employed as a substratum is kept so, but surrounded by moist air."

5. Fresh potato.

In making a series of observations on development, he employs the large apparatus for getting fully developed results, and several of the small ones for results which may be frequently examined, and so show the steps of development.

In making any series of observations, two pieces of lemon, cork, &c., should be employed, on one of which spores are sown, and on the other they are not, so as to be able to compare the one piece with the other.

III. *A summary of Professor Hallier's views as gathered from explanatory statements made whilst demonstrating his preparations of cholera stools, &c.*—Professor Hallier stated that the fundamental idea of the whole theory is that "moulds

are mere unripe forms of ustilagines." This is a view of his own, and is not generally recognised. He believes that any fungus of this series may appear under various forms; these forms depending on the nature of the substratum, and on the degree to which ripening goes on. If the spores of an ustilago be cultivated, two forms always appear—viz., the schizosporangic and the cladosporic forms; if the soil on which any of these forms appear alters or ferments, the forms produced are different. He states that each species of ustilago has three ripe forms of fructification, and that each of these has a corresponding unripe representative, the use of the unripe form being probably, according to Professor Hallier, to prepare a more nitrogenised soil on which the higher forms may be developed. "If tilletia caries be cultivated on weak, poor soil, we get only unripe forms—i.e., moulds make their appearance."

These ripe and unripe forms may be thus tabulated, taking as an example the fungus associated with cholera:—

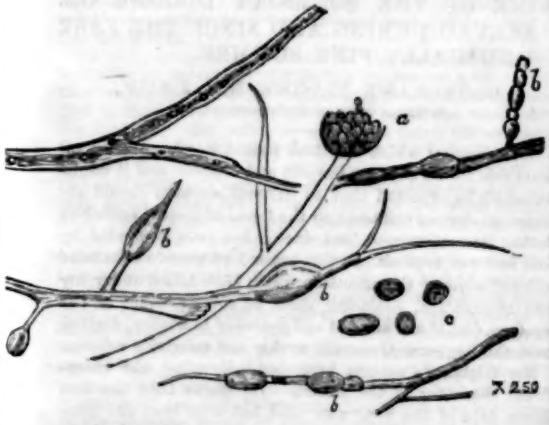
Unripe.	*Ripe.*
1. Macroconidia.	1. Tilletia caries.
2. Penicillium crustaceum.	2. Cladosporium.
3. Mucor racemosus.	3. Schizosporangium (cholera cyst).

The ripe forms are distinguished from the unripe ones by having a cuticula developed, which makes them much more resistant.

"Macroconidia" is the term which Professor Hallier applies to dilatations such as occur in mucor racemosus. He believes that they are unripe forms of fructification, and are capable by a ripening process of becoming tilletia caries spores; but in place of ripening they may, unlike the ripe spores, germinate at once. If the soil on which this germination takes place be sour and poor in nitrogen, penicillous forms result—i.e., the unripe representative of the cladosporium. If, on the other hand, the soil be rich in nitrogen, mucor forms appear—i.e., the unripe representative of the schizosporangium. A schizosporangium is precisely the same as a mucor sporangium, save that it has a cuticula developed on its exterior, and that the contained spores are each provided with a sheath.

The mode of germination in the two forms is quite distinct. Each spore on a schizosporangium on germinating gives origin to a filament, which pierces both the sheath peculiar to the spore and the wall of the containing capsule, without rupture having taken place. In the mucor sporangium, on the contrary, rupture or disappearance of the capsule always takes place before germination, as it, being destitute of a cuticula, is not strong enough to resist the pressure of the swelling spores. (See Fig., and compare with Fig. 4 in the Halle report.) In Fig. 11, however, the schizosporangium had ruptured (*a*). The only form of the series asso-

FIG. 11.



a. Schizosporangium.
b b. Macroconidia.
c. " in "process of developing into tilletia spores." (Hallier.)
(From Dr. Hallier's Preparations of Cholera Stools.)

ciated with cholera which is peculiar to the disease is the schizosporangium or the cholera cyst; but they may probably on investigation be found to occur on the rice plant in India. The schizosporangia of the cholera series are in this climate peculiar to the disease only. They can only be developed on a nitrogenous basis, and under a high temperature. Cholera originates under the same conditions in which true cysts can be produced. This may possibly cause the difference between Asiatic and European cholera—the first being due to the micrococci of the schizosporangia; and the second to the micrococci of their unripe representatives, mucor sporangia, as well as to the indigenous ripe form, tilletia spores.

Professor Hallier does not state positively that cholera is due to the fungus, and he does not believe that any infectious disease can be caused by spores *per se*. It is only micrococci that are efficient agents in producing disease. This may account for the fact that tilletia spores can be and constantly are swallowed in large quantities without producing any bad effects. They are not retained long enough in the intestinal canal to produce micrococcus, and therefore pass through quite passively.

The question of "micrococcus" being thus introduced, Professor Hallier stated his views on the subject. He defines micrococcus as "particles of plasma without any cell-wall." When these particles acquire such a wall they become either "cryptococcus" or "arthrococcus," according to the nature of the medium in which they are contained. Micrococcus, on being introduced into a fluid capable of alcoholic fermentation, becomes cryptococcus, corresponding with the bodies which are generally included under the vague term "yeast cells." If, on the other hand, micrococcus be introduced into a fluid capable of sour fermentation, they become arthrococcus—i.e., they assume an elongated form, and become one form of what are commonly termed bacteria. The term "bacteria," as usually applied, includes both arthrococcus and micrococcus, but no idea of their nature and relations had been attained until Professor Hallier discovered that they were merely the ultimate elements of fungi.

Micrococcus and arthrococcus are multiplied by fission; cryptococcus cannot be so multiplied, "from the strength of its walls and hollowness of its centre," and it is therefore multiplied by gemmation. Micrococcus may be developed into higher forms in two ways:—

1. It may acquire a cell-wall, and pass on through the arthrococcal or cryptococcal stage to the formation of a fully-developed fungus.

2. It may under favourable conditions germinate at once, and give rise to mycelium.

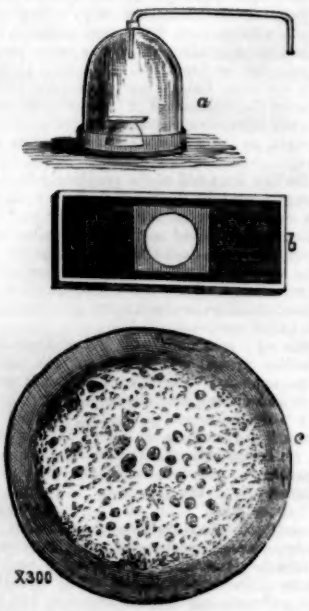
In these views, as well as in those referred to above, Professor Hallier stands quite alone.

IV. *Preparations.*

1. Micrococcus. Professor Hallier exhibited numerous preparations, some of which he considered proved the development of micrococcus, and others its direct germination. In those showing development the field presented bodies like yeast cells mingled with granular matter; but of course no preparations could show that they were mere modifications of one another. In those showing germination there were also granules present, but in this case mingled with fine filaments, but one could not see definitely that these were organically connected. And, as generally, fully-developed fungi existed in the same preparations, but one could not feel certain that the filaments were not mere detached portions of these, associated by mere juxtaposition with the granular matter.

Professor Hallier instituted a culture of scarlatina blood in our presence, in order, if possible, to demonstrate this development and germination of micrococcus. The small apparatus already described was used for the purpose. A drop of the blood being placed on a glass slide (the blood having been preserved for about three weeks in a closed test-tube), a little grape-sugar solution was added as a substratum, and a covering glass placed over it, the latter being separated from the slide by a perforated piece of thin cardboard, which had been soaked in alcohol. This preparation exhibited under the microscope numerous more or less disintegrated blood-corpuscles, associated with granular matter and numerous minute circular bodies, which Dr. Hallier described as being various stages of micrococcus. (See Fig. 12, *c*.) However, owing to the short period of our stay with him, no result whatever was attained.

FIG. 12.

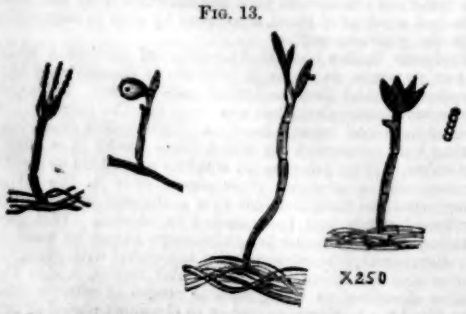


a, Small cultivating apparatus.
b, Glass slide, with perforated cardboard between it and the covering glass.
c, Blood from scarlatina patient, with micrococcus, cryptococcus, and arthrococcus.

2. Illustrative of the relation of moulds and ustilagines. Professor Hallier showed some preparations which, he considered, demonstrated the tendency on the part of mucor dilatations (i. e., macroconidia) to ripen into tilletia spores. These macroconidia (see Fig. 11) presented a double contour, which he ascribed to a tendency to the formation of a cuticula. This condition was quite indistinguishable from the same appearance produced by the mere shrinking of the protoplasm, as noted at Halle. (See Fig. 5 in that Report.) In several of these preparations some tilletia spores undoubtedly existed, but they were always merely lying among the other materials of the preparations, and their existence in such preparation might have been due to mere accidental entrance into the cultivation. The preparations were chiefly derived from cultivations in the large apparatus; therefore, of course, the separate steps in the development were not seen to take place.

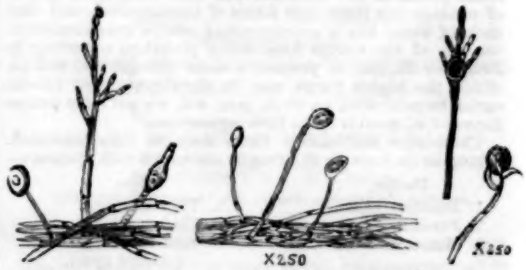
3. Preparations illustrative of the tendency of penicillium to form dilatations resembling macroconidia. A great number of these preparations were exhibited, as, in Professor Hallier's opinion, they prove the identity of mucor and penicillium. (See Figs. 13 & 14.)

FIG. 13.



4. Rice-plant cultivations. Professor Hallier also showed his preparations illustrative of the condition of the rice plants which he cultivated at Jena, watering the soil on which they grew with a solution of cholera evacuations. In order to develop the fungi affecting them, a portion of the leaf had been placed for some time on the surface of a mixture of starch paste with phosphate of ammonia, and small portions of the tissue of the leaf detached for observation. On examination, the tissue presented more or less globular

FIG. 14.



Illustrating tendency of penicillium to form macroconidia.

FIG. 15.

bodies, apparently an aggregation of spores, as figured in his work termed "Phytopathology." In this work Dr. Hallier speaks of the relation existing between these bodies and urocystis, judging from their form and method of germination. He seems now, however, to have abandoned this view of the relation of these bodies to urocystis; nevertheless he maintains that they are analogous to cysts found in cholera evacuations.

BRIEF REMARKS ON

SOME OF THE FORMS OF DISEASE OBSERVED DURING AND SINCE THE LAST UNUSUALLY FINE SUMMER.

BY THOMAS B. PEACOCK, M.D., F.R.C.P.,
PHYSICIAN TO ST. THOMAS'S HOSPITAL, ETC.

THE summer which has just passed has been very remarkable for its extreme warmth and dryness, and it might naturally be expected that so unusual a season should exercise an obvious influence on the forms of disease prevalent during its continuance, and since it has been succeeded by cold and wet weather. In this paper I propose to offer brief notes of some of the affections which have fallen under my own observation, prefacing them by some account of the weather, and of the amount and causes of mortality, derived from the Registrar-General's weekly and quarterly returns.

Mr. Glaisher's reports very decidedly show the exceptional character of the season. He states that the first eleven days of the year were cold, but after that the temperature rose above the average, and continued so throughout the winter, spring, and summer. In the quarter terminating March 31st the exceptions to the excess of heat were few in number and small in amount. Altogether the

daily excess averaged, in the 80 days, 3¼°. The fall of rain in the first month was 2·4 inches in excess; in the other two months 0·3 and 0·5 inches in defect; the total fall being 6·6 inches. The month of March, though warm, was not remarkably so. The mean temperature was 48°, or 2·2° above the average of 91 years. The mean temperature of May was 57·3°, or 4·8°, and of June 62°, or 3·9° in excess. Altogether, the weather during the quarter terminating June 30th was fine and warm, the temperature for the 91 days being 3·1° above the average, and some very hot days having occurred. The highest temperatures recorded were on June 19th (87°) and on June 13th and 14th (85°). The fall of rain was 0·4 inches in excess in April, and 0·5 and 1·5 in. in defect in May and June; the total fall in the quarter being 4·3 in. The month of July had a mean temperature of 67·5°, or 6·1° above the average; of August, 63·6°, or 2·9° above; and of September, 60·5°, or 4° above; and the excess in the entire 92 days was nearly 4°. The heat was also excessive on some days, as on July 22nd, when the temperature in the shade reached 96·6°, and on the 20th and 28th, when it was 90°; on August 5th it was 90·5°, and on September 7th 92·1°. The mean temperature of the three months was 63·9°, or nearly 4° above the average—a higher mean temperature than had been attained in any similar period for 98 years. The fall of rain was 1·3 in. in defect in July and September, and 0·1 in. in excess in August; the total fall in the quarter being 5·1 in. Of the 263 days, from the commencement of the unusually warm weather on Jan. 12th, to the termination of the quarter on Sept. 30th, the temperature exceeded the average by 3½°; and in no season since 1771 has the excess been so large for so long a period. The weather was also remarkably fine, the fall of rain for the three months having amounted to only 15·9 in., or 2·3 in. less than the average; and the unusual heat obtained in the night as well as during the day.

On the last day of the quarter there was a change of weather; the temperature fell slightly below the average, and there was some rain, and the weather was cold and wet during the first few days of October. On the 2nd the temperature was 2·9° below the average; on the 3rd, 8·1°; and on the 4th, 3·3° below. There was then a rise, so that for two days the temperature exceeded the average, after which it again declined, and there was a fall of rain. On the 18th the temperature was 7° below; on the 19th, 4·1°; on the 20th, 12·1°; on the 21st, 5·3°; and on the 22nd, 5·4°. A slight rise then took place, after which the temperature again sank, so that on the 24th it was 7° below the average. The cold continued till the last day of the month, when the thermometer again rose to an excess of 6°. The mean temperature of the month was 47·9°, and the fall of rain 2·61 in.; the temperature being thus 1·6° below the average of 96 years, and the rain ·19 in. in deficiency. Thus, after a period of nearly nine months of remarkably fine and warm weather, and for a considerable part of this time of very hot and dry weather, a sudden change occurred during the month of October to a very unusual degree of cold and a full fall of rain.

On comparing this statement of the weather with the mortality in the metropolis during the several weeks from that ending April 4th to that ending Oct. 31st, it appears that at the earlier part of this period, or till the week ending June 20th, the mortality continued below the average, the deficiency in that week being 22. In the following week, however, it rose above the estimated mean to the extent of 150, and continued very high throughout July and August; only again falling below the average in the week ending Sept. 12th. After remaining low for two weeks, the estimated number was again exceeded on Sept. 26th, after which there was a fall in the following week, to be succeeded by a very large excess continuing till the end of October. On looking more closely into the cause of this excess, from June 27th to Sept. 5th inclusive, it will be found that it is chiefly in the zymotic class of diseases. Indeed, while at the earlier part of the period the deaths from this class of causes were below the estimated number, during the hot weather they very considerably exceeded it, and continued in excess till the end of October. The excess also is obvious in the different forms of zymotic disease, but to a much more marked degree in diarrhœa and choleraic affections than in any other; and it especially shows itself among infants and young children. In the month of October the excess of deaths from diarrhœa &c. disappears, but there is still an unusual fatality from fever, and especially from scarlatina and diphtheria. The excess of mortality during the hot weather, though most striking in the zymotic affections, was by no means limited to that class of diseases. Thus the deaths from cerebral affections were considerably in excess during the whole period from April 4th to October 31st, and especially so during the very hot weather in the height of the summer. Diseases of the respiratory, circulatory, and digestive organs were also more fatal than usual during the same period; and the increased mortality showed itself rather in consumption than in the acute forms of pulmonary affection, bronchitis and pneumonia. All forms of diseases of the respiratory organs, however, showed a very marked increase after the commencement of the cold and wet weather of the autumn. The forms of disease which fell under my own notice, and which appeared to be more prevalent than usual during the summer or in the autumn, or which were apparently more or less influenced in their characters by the unusual season, were—

1st. Sudden seizures of a cerebral or cardiac character. Acute cerebral attacks, though they occurred occasionally in the metropolis, were apparently more common in the country. Several cases of the kind occurred at St. Thomas's and in private practice. They generally commenced with a sense of heat, weight, and fulness in the head, followed by dizziness and pain, and frequently by unconsciousness, with or without convulsions.

Two very characteristic examples of sunstroke were admitted under Dr. Bennett, which have been reported by Mr. Churchill, the medical registrar. In one of them, a man, twenty-eight years of age, was much exposed in going about town in search of work. On Aug. 5th, after walking part of the way to Norwood, he fell down unconscious, and was taken to the hospital. When admitted he was much prostrated, and complained of severe pain in the head and tingling in the extremities, and was languid and dull. Soon after he had a slight fit. The symptoms subsided in two or three days, so that he was convalescent after he had been in the hospital about a week.

In the other case, a female, aged sixteen, went down to Ramsgate on Aug. 3rd, and after arriving there she suddenly felt chilled, had numbness of the hands and feet, and became unconscious. She soon recovered, and was able to return to town, but felt giddy, had severe headache and restlessness, and again became unconscious, and was admitted in that state into the hospital on the 5th. After being about a week under treatment she rallied to a considerable extent, but continued to suffer for some time from fulness and pain in the head and feverishness.

The attacks in both these cases were probably conduced to by prolonged want of food. The days on which they occurred were very hot. On Aug. 3rd the temperature at Greenwich attained a maximum of 81·5° in the shade and of 158° in the sun; and on the 5th the temperature was 90·5° in the shade and 162° in the sun.

In another case, which I saw in consultation with Dr. Campbell, of Marquess-road, Canonbury, exposure to the sun appeared to have acted as the exciting cause of an attack which ran on into typhoid fever. A gentleman, forty-five years of age, left his home on the 1st August, at 1 P.M., to make some business calls, in perfect health; and returned in about two hours, complaining of intense pain in the head. He kept his bed nearly the whole of the next day, and was somewhat relieved; but on the 3rd the headache returned more severely, his face became much flushed, the eyes suffused, the tongue furred, the skin dry, and the pulse quick, and he complained of general pains and inability to walk. On the 11th diarrhœa set in; on the 12th a petechial eruption appeared about the chest; and he sank into a typhoid state, and died on the 21st.

In other cases the attacks took the form of epileptic seizures, in persons who had not previously had epilepsy. In one case which has been under treatment at St. Thomas's during the whole autumn—the patient, a girl of about twenty-two, was seized while working in a hot kitchen two days before admission, and was found paralysed on the right side, partially comatose, and incapable of speaking. She has not had any repetition of the convulsions, but has been liable to severe attacks of headache, with flushed countenance and feverish symptoms, at intervals, and there is still slight remains of the paralysis. One of the most curious cases which I saw during the summer was that of a female,

aged fifty-nine, whom I attended with Mr. Goff, of the Westminster-road. She first suffered from a severe attack of colic, from which, however, she had to a considerable extent recovered, when, after having been somewhat excited by seeing visitors the evening before, she was found in the morning partially insensible. When I saw her, on the 14th July, she was capable of being aroused sufficiently to protrude her tongue, the pupils acted naturally, and she was able to swallow and was not paralysed. She passed water unconsciously, and there was at first a suspicion that she might be labouring under albuminuria; but the urine, when removed by the catheter, contained a mere trace of albumen, which, as it was alkaline, was probably due to vesical irritation. Attempts were made to arouse her by stimulating enemata and blisters, and by the exhibition of support, but without effect; she became more decidedly comatose, and died nine days after I saw her, or about three weeks from the commencement of the symptoms.

Cases of sudden death, which apparently depended upon arrest of the action of the heart, were also of occasional occurrence during the hot weather. One of these attracted much attention at the time, and was reported in the public papers. A gentleman, fifty years of age, a member of the London Rifle Brigade, was much exposed during the Windsor Review on the 25th of August last. He was on the ground from two o'clock in the afternoon till seven or eight in the evening; and, during this time, could not have had any refreshment, except from a flask which he had with him. About the time mentioned, he complained to his commanding officer that he felt much oppressed; but the battalion being almost immediately after ordered to fall in, he took his place, and marched on. About an hour afterwards, he suddenly fell forward, the rifle dropped from his hand, and when his comrades attempted to assist him, he was found to be dead. In this case there can be no doubt that death ensued from syncope. His medical attendant, in a report to an insurance office, stated that he had not been consulted by him for any serious illness; and I examined him for the company about a year before his death, and did not hesitate to report him as an insurable life. The day on which the review took place was a hot one. The temperature in the shade at Greenwich was 70·4°, and in the sun 135°. In this instance there seems no reason to suppose that there was any serious defect about the heart before the attack; but instances of sudden death, in persons whose hearts were previously diseased, were not of uncommon occurrence during the hot weather. Such cases occurred both at St. Thomas's and the Victoria-park Hospitals; and the death of a cyanotic boy, a patient of Mr. Gaskoin, whose heart I had the opportunity of exhibiting at the Pathological Society, apparently resulted from the exhaustion caused by the heat of the weather. Very recently I have seen an interesting case in which cardiac symptoms came on in a gentleman, a farmer, residing in Sussex, while out in the fields in the middle of the day, about the beginning of July. He was suddenly seized with a peculiar sensation in the region of the heart, followed by palpitation, and became so faint that he with difficulty could avoid falling. The symptoms had continued at intervals up to the time of my seeing him. He then complained of uneasiness in the region of the heart; palpitation increased by any exertion or excitement, and some shortness of breath. On examining the heart, it was found to beat with undue force; but the sounds were natural.

2nd. As might naturally be expected, cases of biliary derangement were of common occurrence during the hot weather. Several cases of jaundice, apparently dependent on hepatic engorgement, were admitted into St. Thomas's; and slight feverish attacks, often also connected with intestinal and hepatic disorder, were prevalent. Cases of specific fever, typhus and typhoid, occurred during the time, but not, in the hospital practice, more frequently than usual. In these cases, in addition to the usual eruptions on the skin, roseolous, lichenous, and miliary eruptions were very common, and occurred in a more marked degree than usual. In some cases, also, the skin, instead of being dry, continued profusely perspiring throughout the whole duration of the disease. The attacks of typhoid also commenced more abruptly than usual, and very rapidly attained their height, so that the prostration of strength became great even at an early period. The disease was not, however, more fatal than usual, though one case terminated unfavourably on about the fourteenth day, and the mucous membrane of the bowels displayed the usual sloughs and ulcers.

3rd. During the summer several cases of acute albuminuria also occurred, not connected with the eruptive fevers, but arising from checked perspiration in persons who were following laborious occupations, who had been engaged in athletic sports, or who exposed themselves in the evening after very hot days. Since also the hot and dry weather of the summer has been succeeded by the cold and damp autumn, cases of acute congestion of the kidney, giving rise to albuminuria, have been unusually common, and have occurred both independently and during the course of febrile diseases, as typhoid and rheumatic fever, as well as after scarlet fever. In one of the former class of cases, which occurred in the height of the summer, the lungs and heart became involved, and the patient, a lady, very rapidly died. In another case during the autumn, a girl, seventeen years of age, who had dropsy after scarlet fever when nine years old, died very quickly, and the kidneys were found cystic and contracted, and intensely congested. In other cases the symptoms readily subsided.

4th. The most remarkable result, however, of the unusual season which we have passed through, is the great prevalence of acute and subacute rheumatic affections, which was first noticed towards the end of September, increased during October, and still continues. Between the 16th of September and the 2nd of November, more than twelve cases of this description were admitted under my own care at St. Thomas's Hospital; while in the three previous years the cases received during the same period into my wards were only one, three, and five. Nor is this unusual number of admissions merely accidental. All the other physicians have equally had a large number of rheumatic cases under treatment. The medical registrar, Mr. Churchill, has obligingly furnished me with a return, from which it appears that the admissions with different forms of rheumatism, between the 10th of September and the 31st of October of last year, amount to 37, while in the corresponding period of 1867 these admissions were only 19, and in 1866 they were 25. The Registrar-General's reports equally show that the more acute forms of rheumatism have been unusually prevalent during September and October, the number of deaths registered as from rheumatism and pericarditis being considerably above the average. The cases which I have seen, though fully warranting the term rheumatic fever, have been all of the subacute description; the temperature has not been very greatly increased, and the febrile disturbance not very marked. The tendency to perspiration has, however, been somewhat greater than usual; lichenous and miliary eruptions have often appeared on the skin; and, as before mentioned, occasionally the urine has contained, at the earlier periods of the attacks, a small amount of albumen. I am not able, from my limited experience during so short a period, to say whether in this epidemic the proportion of cases of cardiac complaint has been greater than usual. I have, however, met with several cases both in hospital and private practice in which the attacks were complicated with pericarditis, with or without endocarditis; but I have not seen any case in which endocarditis occurred alone. This is in accordance with previous experience, that pericarditis occurs rather in the cases of rheumatic fever of slight severity, while endocarditis is chiefly met with in the more intense cases.

Finsbury-circus, Jan. 1869.

ON

REMOVAL OF THE TONGUE BY DIVISION OF THE JAW AND THE USE OF THE ECRASEUR.

By CHRISTOPHER HEATH, F.R.C.S.,

ASSISTANT-SURGEON TO UNIVERSITY COLLEGE HOSPITAL, AND TEACHER OF OPERATIVE SURGERY IN UNIVERSITY COLLEGE, LONDON.

Two methods of removing the tongue have been recently brought under the notice of the profession by Mr. Gamgee and Mr. Nunneley respectively, and the latter—i. e., with

the écraseur—I have seen yield excellent results in the hands of Mr. Erichsen. In Mr. Holt's practice, also, I have seen excellent results from the employment of the écraseur in a somewhat different manner—viz., by dividing the sublingual tissues horizontally with an écraseur, so as to allow the tongue to be drawn thoroughly forward, after which the instrument can be readily made to encircle the organ at its base. I wish now to place on record a case of removal of a great part of the tongue, affected with disease which involved also the floor of the mouth, by dividing the jaw after the manner of Mr. Syme, and then applying the écraseur—a proceeding for which, however, I can claim no originality, as I find it has been performed by Mr. Moore and Mr. Nunn at the Middlesex Hospital, and probably by other surgeons. The cases which cannot be treated without the severe complication of dividing the lower jaw are comparatively few, but where the disease has already involved the floor of the mouth, so that it is impossible to encircle the whole of it with the écraseur, or even to draw the tongue forward, no other proceeding can be adopted. Any or all of these operations appear to me, however, only applicable to cases of disease requiring the removal of the whole *breadth* of the organ; when but one side is involved, the écraseur, however applied, appears to me unsatisfactory, and I have myself obtained, and witnessed in the practice of others, much more satisfactory results from free excision with the knife, and the application of the actual cautery for the arrest of hæmorrhage. The following are the notes of my patient's case:—

L. D——, aged sixty, was admitted into University College Hospital under my care on the 7th September, 1868, suffering from cancer of the tongue, which had been noticed for six months. On looking into the mouth there was, between the tongue and the lower jaw on the left side, a ragged ulcerated surface occupying the floor of the mouth. This was prolonged to the side of the tongue, and with the finger a hard mass could be felt in the substance of the organ, extending beyond the median line and to about two inches from the tip. The patient complained of constant pain in the tongue, but was otherwise in good health. On Sept. 14th a slight enlargement of one of the submaxillary glands was to be felt. The operation had been deferred till the 19th, on account of the patient's private affairs.

On Sept. 19th, under chloroform, I divided the lower lip in the median line, and, having dissected back the tissues from the bone, bored a hole on each side below the level of the teeth, and then divided the jaw with a fine saw, keeping strictly to the median line, so as to avoid extracting any teeth. The jaw being divided, the incision was prolonged to the hyoid bone, and, the halves of the jaw being retracted, the disease was dissected up from the floor of the mouth, and some of the sublingual structures were divided. A thread being passed through the tip of the tongue, it was drawn forward, and an écraseur was slipped over it and behind the disease in the substance of the tongue. The écraseur was worked at half-minute intervals, and the tongue divided. As soon as the division was completed, one of the ranine arteries was seen bleeding, and was effectually twisted. No more bleeding occurring, the wound was sponged out with solution of chloride of zinc (forty grains to an ounce), and the sides of the jaw were brought together with a piece of thick wire, which was twisted firmly. The lip was then brought together with two harelip pins and a suture, the lower part of the wound being left open for a drain. Two hours after the operation there was free bleeding from the mouth, and, as I had been called out of town, my colleague, Mr. Berkeley Hill, was sent for, who opened the wound and the jaw, when the ranine artery opposite to that twisted at the operation was found bleeding, and a ligature was applied to it and to another vessel, the parts being brought together as before.

No further hæmorrhage occurred, and the patient made an uninterruptedly good recovery, being liberally fed with an ordinary feeding-boat. The harelip pins were removed on the fourth day; and there being some submaxillary swelling, a poultice was applied for a few days. There was profuse discharge from the lower portion of the wound for three weeks; and no doubt much of this was saliva. After this time the discharge came from the mouth, a good deal being caused by the irritation of the wire in the jaw, the ends of which came against the lower lip.

On the 17th of October (four weeks after the operation), the jaw not having united, I made an attempt to twist the wire tighter, since the patient felt the two pieces working upon one another. The ends of the wire, however, broke short off, and the attempt was necessarily abandoned. Under these circumstances, Mr. Ibbetson was applied to to fit a cap to the teeth to hold the pieces of the jaw firmly together. A model was taken by Mr. Ibbetson on the 21st of October; and on the following day an accurately-fitting cap of black vulcanite was put on, and was quite comfortable. On Oct. 28th two small pieces of bone had worked out from the symphysis. The saliva still flowed out of the mouth in great quantities. The tongue had quite healed; but the patient occasionally felt a darting pain in it. The patient had to wear the vulcanite cap for six weeks before the jaw was completely consolidated; and I then ventured to remove the wire, which up to that time had remained in the bone. He then returned to the country, the only complaint being an occasional overflow of saliva from the mouth.

It will be observed that the long stay of the patient in the hospital was entirely due to the non-union of the divided jaw; and I understand that in the cases of the same operation at the Middlesex Hospital a similar difficulty was experienced. In the account of Mr. Syme's only successful case of removal of the entire tongue (THE LANCET, Feb. 4th, 1865) by division of the jaw, and removal with the knife, no mention is made of the union of the bone; but it could hardly have been complete at the time of the patient's departure from Edinburgh. In my own case the greater age of the patient may account for the delayed union. The disease in the tongue presented the appearance of medullary rather than of epithelial cancer; and this opinion was confirmed by the committee of the Pathological Society to whom the preparation was referred.

Cavendish-place, January, 1869.

ON SMALL-POX AND VACCINATION IN INDIA.

By ROBERT PRINGLE, M.D.,

SURGEON H.M.'S BENGAL ARMY, AND SUPERINTENDENT OF VACCINATION, NORTH-WEST PROVINCES OF INDIA.

(*Concluded from page 45.*)

B. *The prophylactic measures had recourse to by the Government of India, and comprehended in their schemes of vaccination.*—These might be summed up in two systems—viz.:

1st. Vaccination carried on by the medical officers in charge of civil stations; and

2nd. That conducted by a class of medical officers specially selected, and relieved from all military and civil duties, to enable them to devote their whole attention to the subject.

1st. By medical officers in charge of civil stations. This system will require but a brief notice, as it is now abolished as such. The defects witnessed in it were guarded against in the second, the chief one being want of supervision, owing to the inability of the medical officers to leave their stations, and test the accuracy of their vaccinator's returns, his knowledge of his duties, or the character of his operations.

2nd. By medical officers specially selected for superintending vaccination. This is the system now adopted throughout India generally, and may be divided into two kinds—viz., that employed in the Bombay Presidency, where there is no general superintendence other than that of the Deputy Inspector-General of Hospitals of the Division, which, as far as I can learn, is limited to the receipt of the returns; and that in practice in the Bengal Presidency, where there are Divisional Superintendents-General of Vaccination, whose chief duty is to supervise their superintendents of vaccination. Being most conversant with the latter method, as carried on in the North-west Provinces, and known as Dr. Pearson's Scheme, I will confine myself to a description of it, remarking in passing that his has the merit of being the original one in its most important details. In these details it will challenge a comparison with any other in practice in India; while its late

universal adoption in the Bengal Presidency may be considered a proof of its superiority. To Dr. Pearson undoubtedly belong the entire credit and honour of having, after years of close attention to the subject, finally succeeded in establishing a voluntary system of vaccination as nearly approaching perfection as its machinery, so to speak, will admit of, while it is absolutely such in that of being self-supporting. By this latter remark I mean, the vaccine vesicle, once started, need never be lost, and this in a country where vaccination in the plains can be carried on beneficially for barely five out of the twelve months. How it is kept up during the remaining seven months, in quantities sufficient to admit of the vaccine vesicle being started afresh in a thousand places at once if necessary, I will show hereafter. It must not be forgotten that Dr. Pearson's scheme was conducted to its successful issue in the face of an opposition from the priest-ridden and caste-prejudiced natives of the North-west Provinces of India, which, should it have been advisable, would have called for a Vaccination Act similar to that found necessary in this country. I say if advisable, for I do not think such necessary, being clearly of opinion that the best basis for a system of vaccination in India is a voluntary one; but then the scheme must be carried out systematically and carefully—in short, in such a manner that its present and ultimate benefits will be self-evident to the natives; then I have no doubt of its voluntary universal adoption. Time must be allowed for this happy termination in the plains of India, but its extension on the present principles is all that is necessary, and if the publication of this paper leads to that happy result, I shall be amply rewarded. Liberal as the Government pecuniary grants have lately been, more money is needed to extend the scheme; and if millions laid out in works of irrigation will directly benefit the natives of India, thousands spent in vaccination will add to the population which will enjoy these benefits, by reducing in India the prevalence of small-pox and the fearful mortality from it, of both of which I have attempted to convey some idea. The mortality returns of the North-west Provinces, which I have had an opportunity of perusing, give, for reasons obvious to anyone who has studied the subject, but an imperfect estimate of the appalling mortality from small-pox, and I think it would be difficult to name any more fertile source of the allowed decrease in the population than is to be found in the prevalence of a disease acknowledged to be preventable.

The following are the main features of Dr. Pearson's scheme:—

1st. Supervision by European medical officers specially qualified for the work.

2nd. A carefully trained staff of native vaccinators.

3rd. Fixing the field of each vaccinator's operations within such limits as would admit of the benefits of systematic vaccination being made apparent in the district in which he works, whence the practice may be expected to spread on its own merits (the best foundation in a voluntary scheme like that under notice) to the surrounding districts.

4th. A system of returns so compiled as in their execution not to interfere with a given amount of work to be done, but yet capable in themselves of detecting any attempt at falsification.

To illustrate the preceding, I will briefly describe the duties of a superintendent of vaccination in the North-west Provinces, who is always a European medical officer. During the vaccinating season the superintendent's sole duty is to be marching through his district inspecting the operations of his native vaccinators, which he does in the following manner. Having arrived at the head-quarters of a vaccinator, by means of the vaccinator's diary he can readily ascertain how the work is progressing. On examining this diary, he takes a day's work and sends the vaccinator on to the village; and, having noted at random others where he has operated, he can, on arriving at any of them, by means of the "Village Nominal Return" left with the head man of the village by the vaccinator, call up the vaccinated cases. Thus the superintendent has the opportunity of testing the quality of the operations and the accuracy of the recorded results, when, should there be any attempt at falsification, it is not only readily detected, but done in such a manner that the vaccinator stands convicted on his own written evidence, every record being in his own handwriting. The knowledge which the vaccinators have that any attempt at falsifying returns will be soon found out, and the removal of any undue pressure as regards quantity in place of quality of operations being expected, have the best possible effect in keeping these returns correct. The vaccinator not being present during these random visits, the superintendent has ample opportunity of extracting from the villagers the estimate which they have formed of the vaccinator and his work,—an invaluable point in a voluntary system of vaccination, as on the bearing and conduct of these vaccinators rests much of the success or failure of the scheme. As the superintendent pays these visits on horseback, he will probably arrive at the particular village, if at any distance, as soon as the vaccinator; when, with the cases before the operator, he inspects them, and points out anything worthy of remark. At first sight it may appear that I have entered too minutely into what might seem trifling details; but among a suspicious and bigoted population it is only by attention to these minutiæ that the former is allayed and the latter overcome; and when this is attained, careful and systematic vaccination has a foundation that nothing will shake. If there is one point more than another which I strive to impress on my native vaccinators, it is that one carelessly vaccinated case will produce an amount of injury to their reputation as vaccinators which fifty successful cases may not entirely remove; and that the records of their work which they leave in the villages will, if it is carelessly done, prove a powerful instrument against their future operations, by shaking the faith of the villagers in them personally, and their work generally. On the other hand, that they can wish for no better certificate of their skill as operators, and of the true benefits of vaccination, than the village return of a series of carefully vaccinated cases. To every ten or twelve of these native vaccinators is a native superintendent, who has been promoted for his zeal and good work. His duties consist chiefly in supervising the vaccinators while operating, aiding the superintendent in testing the accuracy of the returns and the quality of the work, and, should any opposition to the scheme arise in a district or village, using his personal influence to overcome it by explaining the benefits which may be expected from the adoption of vaccination; and it is astonishing what patience and tact they display, and how rare it is that they are not rewarded with success. The duties of the Superintendent-General are summed up in his title, while, speaking generally, his extensive knowledge of the subject, from the care and attention he has devoted to it, is of the greatest value to superintendents on joining the Vaccine Department, and not unfrequently to those who have been some years in it. This, to do the subject justice, is, as briefly as I can describe it, Dr. Pearson's scheme, though there are still many interesting details into which I have not time to enter. I trust, however, that I have said enough to show the authorities, and my professional brethren in this country, that a voluntary scheme of vaccination has to be gently handled in a country like India, if any ultimate benefit is to be derived from it.

I will now describe how the supply of vaccine lymph is kept up fresh and active in a country like India, where, owing to the heat of the plains of Hindoostan, the vaccine vesicle degenerates, and operations have to be closed. For this purpose I will take the system as I originated it in the tract of the Himalayan range of my division of superintendence, but must, in justice to Dr. Pearson, add, that it was taken from that previously practised by him.

With the exception of the tracts of India which are directly affected by the sea breezes, and those above an altitude of 6000 feet, the vaccine vesicle cannot be kept up in that country throughout the year in the perfect state in which it should be, either to impart its full benefit to the case operated on, or be the means of extending it to others. In the Doab (or, I may repeat, the country lying between the Ganges and Jumnah, and south of the Sewalick Range) the vaccine vesicle will not rise satisfactorily, as a rule, before the beginning of November, and deteriorates, becoming thus useless, towards the end of March, when all operations consequently cease. The vaccine lymph, however, before this degeneration sets in, can be taken in capillary tubes to the Himalayns, where, at first, at an altitude of 6000 feet, it can be kept in an active condition; but the altitude must be raised as the heat increases, till, at 8000 or 9000 feet, it is beyond the reach of climatic changes, and is propagated with the greatest facility. To enable me to keep up a con-

stant supply of vaccine lymph I have divided my Himalayan tract into three districts, for reasons which I will give hereafter, and the operations are carried on as follows:—Owing to the paucity of the inhabitants at these high altitudes the operations, which are commenced in May, are limited at first to once a week; but, as November draws near, when a large supply of vaccine lymph is required for the commencement of the vaccinating season in the plains (where it has to be started *de novo*), they are increased to twice, and if the number of cases will admit of it, to three times a week. After a sufficient number of *uninjured* vesicles have been left to impart full protection to the case, and enough lymph been taken to carry on vaccination in the village or neighbourhood, that which remains and is superfluous (an increased number of applications being primarily made with this object) is stored in capillary tubes by the vaccinators, who are specially instructed in this branch. At the close of the vaccinating season in the hills this supply is sent to the plains by the ordinary post, in time to commence operations in November simultaneously at forty or fifty centres in my divisions, and in sufficient quantities to meet all the demands made at my office for fresh vaccine lymph from the civil and military officers in my divisions. This method of propagating the vaccine vesicle is capable of being carried on indefinitely by the following simple expedient; and when once a vaccinator has obtained a characteristic vaccine vesicle, he must be very ignorant of his duties if, with the population of the plains, he applies again for lymph during that season. The expedient alluded to is applicable only to the Himalayas, owing, as I said before, to the scantiness of the population, where, as in my division, for instance, if all the cases requiring vaccination were operated on successfully in one season, there would not be a sufficient supply in the next to do aught else than merely keep up vaccination, without being able to store up an adequate supply for the plains season. To obviate this, I may repeat that I have divided my Himalayan district into three, and use one in a season, thus allowing fresh cases to collect in sufficient numbers during the next two, or if necessary, three years. It might be advanced against this plan that it unnecessarily exposes a population to the risks of small-pox. This, however, is fortunately not the case, as, owing to the very limited intercourse which these remote and high villages enjoy, with inoculation prohibited, small-pox will grow, but rarely enter them; and should such a contingency occur, with the few cases amenable to it, the vaccinator working in the villages below this high altitude could rapidly protect them by vaccination. I may here mention that the results of my first season in one of these Himalayan districts were nearly 500 good crusts and 200 well filled capillary tubes, a supply more than ample for my own wants, or the requisitions for vaccine lymph on my office.

I may briefly allude here, for the benefit of my professional brethren engaged in vaccination in this country, to the manner in which the vaccine operations are conducted in the North-west Provinces of India. Owing to the objection the natives have to allowing their children to be taken from one village to another, "arm-to-arm" vaccination is not had recourse to, except in the village itself. The vaccine lymph is conveyed for short distances and time on ivory points; when both are longer, in vaccine crusts; and when still longer, and the weather is becoming hotter, in capillary tubes. Without doubt the capillary tubes, as supplied by Dr. Husband, of Edinburgh, when filled and closed by skilful hands, are vastly superior to any other method for conveying or storing lymph, and, with the single exception of arm-to-arm vaccination, the most satisfactory method of vaccination; but, owing to the expense it would entail in the operations in the North-west Provinces, it is too costly to be generally adopted; and, fortunately, vaccine lymph on ivory points, when fresh and the weather is cool, is almost equally successful. I would merely add, that the vaccine needle, a slight modification of Dr. Graham Weir's, is the instrument employed in the vaccine operations of the North-west Provinces, in preference to the lancet; and, when skilfully applied with the light touch of a trained native vaccinator, most successful.

In a country where a Vaccination Act is in force, it is difficult to convey an idea of the opposition which has to be met and overcome before a voluntary system of vaccination, such as I have described, can be successfully carried on in a country like India. Every conceivable objection is started; but it was reserved for the priest-ridden and bigoted city of Benares to advance one which, for ingenuity, surpasses any I have ever heard. It was the following:—Some of the priests of this city (among whom are many deservedly respected for their learning) gave out that there was an old prophecy, that a black child would be born with white blood, who should rule India, and turn the English out, as they expressed it; and it was with a view to find out the advent of this child that the Government had given orders to scratch the arms of their children. The answer to this would be simply that the presence of blood during the operation, instead of being a proof of the vaccinator's skill, was the reverse; and that if in their neighbourhood any vaccinator was in the habit of doing so, his practice would soon be put a stop to. I could cite other objections, and, absurd and untenable as they undoubtedly are, it is surprising what credence the ignorant and priest-led Hindoo attaches to them, and how difficult it often is, from their very absurdity, to argue them out of their belief in them.

Years must elapse before the fearful scourge of small-pox can be even much abated in the plains of India, since, as I said before, vaccination is still in its infancy among the almost countless thousands of Hindoostan; and though it has a satisfactory footing in some considerable tracts of country, yet I should be painting the picture in too bright colours if I did not add that there still are places in which it is struggling for a bare existence, and many more where its benefits are even unheard of. Careful and systematic vaccination must nevertheless win the battle over prejudice and apathy in the end; and it is impossible to suppose that the benefits witnessed in some districts by its adoption will fail to spread, by rumour at least, to others less favoured. There are districts in the Himalayas, such as those of Kumaon and Ghurwal, where Dr. P arson has been at work for years, and where at last the benefits of vaccination have become self-evident to the natives by the almost complete absence now of small-pox. No doubt these districts, by their limited population and intercourse with the plains and with each other, present conditions more favourable to this happy result than the densely crowded villages of the plains, each of which might be considered a thoroughfare when compared with those in the Himalayas. Before long, I trust, my Himalayan district will be similarly freed from small-pox, and the natives preserved from the possibility of the recurrence of an epidemic like that which produced what I have before described, and termed a gap in the population.

In summing up the vast importance of this subject, I would beg to add that, after a continuous residence of nearly thirteen years in India, and having seen cholera in its most fatal haunts during three years at Juggernauth, and witnessed the effects of famine, I have arrived at the conclusion that, though the former may count its victims by hundreds, and the latter by larger numbers though at longer periods, yet both pale before the spectre of small-pox, stalking yearly through densely crowded villages, and seizing its victims from the children born since its last visit, with a mortality which it is appalling to contemplate; and, knowing this as I do, I confess to feeling an earnest desire to do all that in me lies to check a scourge allowed to be preventable. I return in January to my duties; but if, during my short stay in this country, I have succeeded in enlisting on the side of vaccination one tithe of the sympathy and help which the subject demands, I feel I shall not have pleaded in vain for the infant population of Hindoostan.

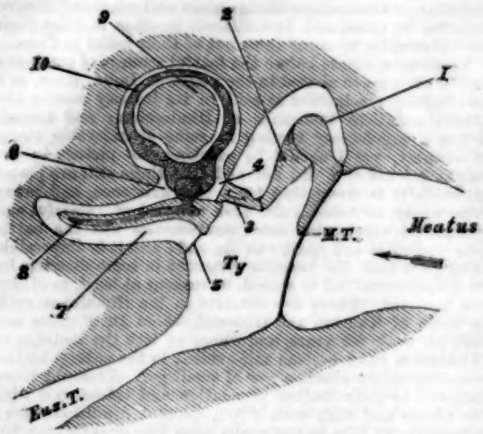
THE VETO OF RELIEVING OFFICERS.—The Poor-law Board has given a decision adverse to Dr. Fitzpatrick, the medical officer of the West Derby Union, on the disputed point whether or not the relieving officer was justified in refusing to supply certain "extras" ordered by him to be given to one of the union patients. The Poor-law Board, however, points out that "the recommendation of a medical officer as regards the supply of 'extras' is entitled to great weight, and it is not expedient it should be disregarded by the guardians, unless it appear that what is ordered is improper in its nature or excessive in quantity, or that the person on whose account it is ordered is in a position to provide it at his own cost."

ON SOME OF THE FUNCTIONS OF THE MIDDLE AND INTERNAL EAR: AND THEIR ANALOGIES.

BY PETER ALLEN, M.D., F.R.C.S. EDIN.

(*Continued from page 0.*)

The Eustachian Tube.—The remarks which concluded the preceding paper lead naturally to some discussion of the offices and relations of the Eustachian tube. Before, however, proceeding to this, one or two observations, suggested immediately by my former reference to the tympanic cavity, will not be entirely out of place.



A diagram illustrative of the relative positions of the various parts of the ear.

M. T., Membrana tympani; *Ty.*, Tympanum; *Eus. T.*, Eustachian tube. 1, Malleus; 2, Incus; 3, Stapes; 4, Fenestra ovalis; 5, Fenestra rotunda; 6, Scala vestibuli of the cochlea; 7, Scala tympani of the cochlea; 8, Scala media (canalis cochlearis) of the cochlea (the cochlea is supposed to be unrolled); 9, one of the vertical semicircular canals and its ampulla between the figures 6 and 10; 10, Membranous labyrinth. Only one of the three canals is represented.

In considering the tympanum as a closed chamber filled with respired air, we perceive the same conditions in operation for increasing *resonance* and *rapidity* of sound-transmission as exist in the production of the human voice. The air which throws the vocal cords into vibration is urged from the lungs during expiration, and upon the degree of tension to which their proper muscles subject them depends their rate of vibration, and consequently the pitch of the emitted sound. But resonance of voice is chiefly effected by the reciprocating cavities of the larynx and mouth, by which all the fundamental tones, as well as the over-tones, are so mingled and modified as to cause a reinforcement of any particular tones desired. Upon the rapidity and accuracy with which the vocal cords can be made to change their form and tension, through the agency of their muscles, together with appropriate adjustment of the cavity of the mouth and the lips, depend the qualities of the voice; and it is by the suitable elective action of all these parts together that the human voice is rendered the most perfect of all musical instruments. Hence it follows that the vibrations of certain elastic membranes in the larynx become "modified, extended, and multiplied" by the reciprocating resonant cavity of the mouth, in a manner analogous to that in which those sonorous undulations are acted upon which strike upon the membrana, and enter the cavitas tympani. It may also be conceived that the mastoid cells, presenting so considerable a surface for reflecting sounds, may exercise functions resembling those of the cells and sinuses of the nasal fossæ: without doubt, the qualifying powers of the oral and nasal cavities, materially assisted also as they are by the lips, far exceed those possessed by the tympanum and mastoid cells; but not the less are these analogies deserving of attentive consideration.

Another not unimportant effect of the tympanic air having acquired a degree of heat which it could not have obtained by mere rapid passage along the nasal cavities is, that the velocity of sound becomes somewhat augmented in travelling through the tympanum.

In connexion with the subject of the foregoing remarks, the reader may find further expositions most correctly given by Dr. Jago, of Cornwall, in his recondite essay on the Functions of the Tympanum.* Although I am unable to agree with him in the whole of his views regarding the mechanism and physical actions of those parts of the hearing apparatus of which he treats, I most unhesitatingly bear testimony to the value which his researches possess in all that concerns acoustic physiology. Dr. Jago gives his personal experience of occasional derangements of the faucial structures which were attended by patency of the right Eustachian tube; and the phenomena which ensued from an open tube are carefully detailed. His observations are peculiarly interesting to me at the present time, corroborating as they do the results derived from similar inquiries regarding the functions *normally* performed by the Eustachian tube when rendered patent by the action of its own muscles. By experiments upon myself, and with the assistance of a well-constructed tympano-manometer,† which will exhibit slight movements of the membrana tympani when excited by quite moderate currents of air passed into the drum through the Eustachian tube, I can produce several of the manifestations which Dr. Jago considers as appertaining to pathological changes alone. As there is perhaps no point in the whole range of aural physiology upon which authors more widely and persistently differ than on the condition and uses of the Eustachian tube, it will be a great satisfaction should it be in my power to contribute any facts that may lead to a more exact determination of the state which the tube naturally presents.

In the first place, I would observe that Dr. Jago appears incredulous as to anyone being capable of *voluntarily* opening his Eustachian tubes. He writes: "J. Müller (Physiology, translated by Baly, p. 1264) speaks of an abnormal state which he could beget in his own ears by 'elevating the palate,' when a 'buzzing sound is produced in the ear, and the sound of one's own voice by this means acquires the intensity of the tones of an organ.' From this description one would be led to imagine that he could voluntarily open his Eustachian tubes whilst breathing was proceeding; a feat which I cannot perform, though by some contraction of the palate I can help to keep open the tube when it is already dilated."

I demonstrate that occasional patency of the tube may be created through the means of muscular contraction, by placing the tympano-manometer air-tight in the external auditory meatus, and noting the effect produced on the coloured fluid contained in the instrument during respiratory movements, with the tensor and levator palati and posterior palate muscles fixed and made tense. At every inspiration, I not only feel but I *see* that the air is drawn from the drum, and that its membrane vibrates, by the slight falling of the manometrical fluid. At every expiration, I am convinced that the breath enters the tympanum and pushes its membrane slightly outwards, as evidenced by a corresponding rise of the fluid in the manometer. The sound, too, of the circulating air is heard intensified in the tympanic chamber; and if a continuous humming be maintained, the voice does, as Müller describes, almost acquire the loudness of an organ.

In tranquil respiration, when the muscles, thus experimentally invoked to action, are at rest, all these signs are absent, as has been explained in my previous paper. These acoustic manifestations agree, in the main, with those experienced and indicated by Dr. Jago when himself suffering from patency of the Eustachian tube.

The act of *yawning* is another movement, accompanied by deep and spasmodic inspirations, in which the Eustachian tube again becomes opened by its muscles. It is, however, to be noted that no oscillatory motion of the air in the now pervious tube and tympanic cavity occurs during the performance of this action in the ordinary manner; because the intrusion of any portion of the large aërial current is prevented by its being immediately sucked into the trachea from the gaping cavity of the mouth while the glottis is raised. If an attempt be made to inspire through the

* British and Foreign Medico-Chirurgical Review, Jan. and July, 1867.

† Vide letter in THE LANCET of Dec. 19th, 1868, p. 813.

nostrils while the palate muscles are in a state of spasm, a condensation or rarefaction of the air—sometimes the one, sometimes the other—will ensue in the tympanum. The opinion, now (as I believe) for the first time advanced, that the guttural orifice of the trumpet is drawn open during the few moments occupied in yawning, is supported and confirmed, I think, by the circumstance that the performance of this act will cause to disappear the sensations which are produced by either of the following well-known experiments:—

1st. By the method of Valsalva, which consists in an attempt at inflation of the tympanum by a forcible expiration through the nostrils while they are closed, as in energetically blowing the nose. A sense of fulness or tension is experienced in the drum, arising from pressure of air against the inner surface of the membrana tympani, which will remain until the Eustachian tube be made patent.

2nd. By a forcible inspiratory effort made with the nostrils and mouth closed, producing an excessive rarefaction or exhaustion of air. In this case also an immediate removal of the unpleasant sensation, occasioned by atmospheric pressure on the external surface of the tympanic membrane greater than that which exists on the inside, is effected as well by gaping as by swallowing.

3rd. By Toynbee's method of proving that the Eustachian tubes are shut during the state of repose, and that the act of deglutition opens them. Although his proposition that they are *only* opened during this process cannot be maintained, it must be unequivocally admitted that it is the readiest and most easily performed movement for opening their faucial orifices.

I must not be supposed to acquiesce in the physiological reasoning by which the late Mr. Toynbee* arrived at his conclusion, that by swallowing with the mouth and nose closed, "air was pressed into the tympanum, and only passed out again during the same act with the nostrils open; and that, in many instances, the membrana tympani is seen to be pressed slightly outwards by the first act," viz., swallowing with nostrils closed, "and to return to its previous state during the second," viz., swallowing with nostrils open. On the contrary, I most emphatically deny that air-*condensation* can possibly result from a simple act of deglutition with the nostrils closed. I admit that an *alteration* of air-pressure does ensue, but its precise physiological meaning, as derived from manometrical observation and inspection of the membrana tympani, must be left for description in a following paper.

In all the foregoing experiments, repeatedly performed on myself, I have always found the act of yawning relieve the degree of condensation or rarefaction of air in the tympanic chamber equally well with the act of swallowing; and that it does so is owing to the Eustachian tubes being rendered patent by the contraction of their muscles in the operation. The peculiar "clicking" sound accompanying their action in opening the tubes may be heard if listened for.

(To be continued.)

* On Diseases of the Ear, p. 101.

SULPHUR IN THE TREATMENT OF CROUP.—The use of the perchloride of iron and of the bromide of potassium has been much advocated of late in the treatment of croup and diphtheritic angina. The flour of sulphur, which had already been pointed out by different writers as an excellent remedy in similar cases, is now spoken of in most laudatory terms by a French writer, Dr. Feyreigne, of Toulouse, in whose hands it produced most wonderful effects. Dr. Feyreigne only records one case, but it was a peculiarly bad one. The patient, a little girl of four years, was in a dying condition, with intense diphtheritic angina, when the administration of the flour of sulphur brought her back to life. The dose employed was five grammes of sublimated sulphur to one glass of water; a teaspoonful of the mixture to be given every hour.

A TESTIMONIAL (consisting of a handsome electro-plated coffee-tray and biscuit-case) has just been received by Dr. Robert H. Ramsay, of Torquay, as a spontaneous offering from 180 working men of that town, marking their appreciation of his gratuitous services and kindness to the poor generally.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

CASE OF AORTIC DISEASE, ATTENDED WITH ANGINA PECTORIS, IN WHICH NITRITE OF AMYL, CHLOROFORM, AND SUBCUTANEOUS INJECTION OF MORPHIA, WERE EACH USED WITH BENEFIT.

(Under the care of Dr. WILKS.)

THE presence of cardiac valvular disease distinguishes this case from that published by Dr. Fagge in THE LANCET of August 31st, 1867, in which the nitrite of amyl was used without benefit. It appears doubtful from Dr. Lauder Brunton's paper (ibid., July 27th) whether in his cases the angina was simply owing to fatty degeneration of the heart and ossification of the coronary arteries, or was co-existent with valvular disease.

The history of the case is as follows. J. S——, aged thirty-five, was admitted into Stephen ward Oct. 21st, 1868. Patient is a labourer, and used to very heavy work and exposure to all weathers. Had typhus fever at the age of twelve. Had always enjoyed good health till four years ago, when he began to suffer from palpitation of the heart, so severe sometimes as to cause him to fall, unless he could rest somewhere. A year since he was in the hospital under Dr. Habershon's care for cardiac disease. Six or seven months ago he had an attack of pain which extended from the region of the heart to the left side of the neck, the left shoulder, and the inside of the left arm, but lasted only a few minutes. This pain returned about every other night till six weeks ago, when it occurred nearly every night, and has continued to do so ever since. At first the attacks lasted about ten minutes, but lately much longer—even for two hours and a half, and on one occasion for five hours. The pain is preceded by an aura, which consists of an aching pain in front of the left elbow, and precedes the attack for about ten minutes. It generally occurs in the night after a hard day's work, or else on waking in the morning: it causes dyspnœa and great anxiety. No history of syphilis. Has not had rheumatic fever. Has always been a temperate man. One sister died of phthisis, and another is now laid up with the same affection.

The patient is a powerful, plethoric, unintelligent-looking man, with a florid face. His muscular system is well developed, but there is absence of the lower part of the left pectoral muscle and of the left nipple. He has a short thick neck; the cervical glands are considerably enlarged, and so are the left axillary. Skin healthy. Left pupil considerably more dilated than the right. Respiration generally easy, but occasionally oppressed. Respiratory murmur good. Pulse irregular, splashing, dicrotous, compressible, 72. Heart's action irregular; there is a diastolic and a systolic bruit over the aortic valves. Urine copious; specific gravity 1023; contains neither albumen nor sugar. Bowels regular. Tongue moist; slightly furred.

Dr. Wilks ordered him five minims of tincture of aconite in an ounce of water thrice a day. He continued taking the aconite for twelve days, but the attacks of angina continued. Dr. Wilks then ordered him a drachm of tincture of senega in an ounce of the infusion of senega three times a day, and, at Dr. Fagge's suggestion, gave directions that the nitrite of amyl should be used on the next occasion. Accordingly, on Nov. 12th, at 11 P.M., the man having an attack of angina, the house-physician, Mr. Reg. Stocker, tried the effect of the inhalation. The following are his notes:—

Had an attack of angina, which had already lasted ten

minutes. An inhaler of lint soaked with the nitrite of amyl was applied over the nose. He continued to breathe quietly for about half a minute, when the respiration became more hurried and laboured and the cheeks somewhat flushed. The inhaler was removed. He said he was free from pain at the chest, but that he had cramps in the calves of the legs and (pains) in the ankles; these pains subsided after a minute or two, and he then complained only of numbness of the left arm. The pulse was full and slow during the inhalation, but became more rapid on discontinuing it; the surface of the chest also, and the face, which before had been cold and moist, became warmer.

Nov. 13th.—To-night the inhalation was repeated, with precisely the same effects, the cramps in the legs appearing on the subsidence of the pain at the heart.

17th.—10.30 P.M.: Had been in pain about half an hour; he did not think it was leaving him; at times he felt better of it, but the spasm returned as bad as before. He was injected with one-third of a grain of the acetate of morphia over the cardiac region. In about four minutes he said he was free from pain, but had much numbness of the left wrist. He said the pain had disappeared gradually.

27th.—10.30 P.M.: Had an attack of angina, which had continued five or ten minutes. He inhaled the vapour of chloroform from a lint inhaler for two minutes and a half, with free access of air. At the end of that time he was free from pain. Presently he complained of his legs being fixed; they were moved into a more comfortable position, and he said they then felt easy; there was no pain nor cramps in them.

Between the above dates he had attacks of angina, but nothing was used to allay them. The patient says he prefers the morphia injection to the inhalations.

UNIVERSITY COLLEGE HOSPITAL.

THE USE OF CARBOLIC ACID.

CARBOLIC-ACID dressings have been extensively used in this hospital during the last six months, and are now ordinarily employed. We are indebted to Mr. Cluff, late house-surgeon, for an interesting and elaborate account of the results, and regret that our space will not permit us to give more than a brief glance at the principal points to which he alludes. Experience has shown that the greatest exactitude is requisite for the dressings to be successful; and with this attention no doubt is entertained that antiseptic dressings diminish the amount of suppuration, and expedite the cure. For out-patients generally, the use of the chloride of zinc, according to Mr. De Morgan's method, is thought to offer superior advantages to carbolic acid, because less minute care is required in its application, and its effects seem more permanent. Mr. Christopher Heath speaks in high terms of its efficacy.

As regards carbolic acid, the strongest solution in use is made with one part of acid to four of boiled linseed oil; and this is rarely used, except for compound fractures, and such like cases. The solution commonly employed is one containing one part of acid to ten of oil. Still weaker solutions—one to twenty of water, and one to forty of water—are also in common use. The former is employed for washing out wounds that have been exposed to the air for some time before being dressed; and the latter is the ordinary detergent lotion of the hospital, used for washing wounds after operations, and as a protective wash when the outer dressings, afterwards applied, are subsequently changed. The lac-plaster suggested by Mr. Lister has been used in all available cases with good results.

Great importance is attached to the securing a free exit for the discharge which drains from a wound in the first twenty-four hours. The importance of attending to this point was long since pointed out by Mr. Lister; and it is believed that some of the failures in the early experiments with carbolic acid at this hospital were due to the neglect of this. This discharge is in no way affected by carbolic acid as regards its quantity; the acid prevents its decomposition. An important question is,—What is the effect of antiseptic treatment on the constitutional condition of the patient, and on his chances of ultimate recovery? Mr. Lister's views on this point are well known; and the experience of this hospital goes to confirm them in every essential particular. Mr. Lister teaches that with carbolic acid dressings the febrile disturbance which follows operations is notably lessened; that suppuration is enormously diminished, and that the really perilous form of suppuration—that, namely, which he has designated "septic," and which depends on the irritation produced by the decomposition of the discharges,—is altogether abolished; that, as a consequence of this, the perils of hectic and pyæmia are reduced to a minimum; and that, as the result of the whole, cicatrisation and recovery are accelerated. We shall glance at these points *seriatim*.

First, as to the pyrexia immediately following the operation. A number of careful observations have been made on this point by the house-surgeons in the course of last summer, with this general result,—that after all capital operations a decided elevation of temperature is found, ranging commonly from 100° to 102° Fahr., whether the wound be dressed with carbolic acid or otherwise; but that with carbolic-acid dressings the fever is less severe, and is of notably shorter duration. Individual cases differ much in this respect; in some cases dressed by the old method the febrile disturbance may be insignificant, while in some dressed antiseptically it may be severe, and this without any assignable cause. But a broad review of a number of cases treated by the two methods points to the conclusion stated above.

Secondly, as to the effect of carbolic-acid dressings on suppuration. It is rarely or never found that a wound of any considerable size heals under carbolic-acid dressings without the formation of some pus. But this pus, in a successful case in which the antiseptic effect has been thoroughly attained, is always inconsiderable in quantity, and altogether free from smell, and is evidently secreted in great part, if not entirely, by the granulating surface at the part of the wound left open for the escape of discharges under the irritation of the carbolic-acid dressings, with which the granulations are necessarily in contact. If the suppuration extends farther, or if the pus secreted gives evidence by a fetid smell of having undergone decomposition, the antiseptic treatment has, *pro tanto*, failed.

On the whole, the best general results have been obtained in connexion with the opening of abscesses. Some of these cases have been remarkable successes; and there has not been one failure, nor a single case in which a doubt was entertained about the antiseptic treatment having done positive good. In compound fractures, too, the average of success has been high; and there has been, in particular, one very notable case of a middle-aged man, under Mr. Marshall's care—a compound and badly comminuted fracture of the tibia in its lowest third, to which were superadded a compound fracture of the fibula and severe laceration of the soft parts,—a case apparently, at first sight, demanding immediate amputation. The absence of constitutional disturbance in this case was extremely remarkable; after the second day the man had literally none whatever, and the deep parts of the wound closed in with the formation of hardly any pus. The fracture was firmly united when he left the hospital.

In the treatment of wounds of all kinds, whether produced by surgical operation or by accident, the success has been of a more moderate kind. Many of the cases would have recovered as soon under ordinary treatment, provided no complication—especially the terrible one of pyæmia—had supervened; but, on the whole, the belief is that, though in many of these cases the time of convalescence may not have been accelerated, in a very great number the constitutional disturbance, and in nearly all the amount of suppuration, were diminished. It so happened that during the earlier months of last year, pyæmia was exceedingly rife in this hospital. Patient after patient perished by it; and indeed recovery after amputation of a limb was almost becoming an exceptional rarity. This endemic of pyæmia continued up to the date at which carbolic-acid dressings began to be used. Not one of those treated antiseptically died of pyæmia, or indeed ever had a pyæmic symptom.

Phlegmonous erysipelas has not once occurred here in connexion with antiseptic dressings in the wards. Among the out-patients several cases presented themselves; but in all the dressings had been tampered with, and the wound (in the arm, in most of the cases) had not been kept at rest.

It was the occurrence of these and other similar cases that led to the comparative disuse of antiseptic dressings in the casualty-room.

Secondary abscesses and sloughing of the skin are occurrences of infinite rarity now that the acid has ceased to be used in a concentrated form.

Notably, there have been more cases of persistent and uncontrollable vomiting after operations since the introduction of carbolic-acid dressings than there were before; and it is not unreasonable to suppose that the absorption of some of the acid from the raw surface of the wound superadds a new irritant to that already circulating in the blood—namely, chloroform. This vomiting is often a very serious matter, and in three fatal cases appeared to contribute no inconsiderable share to the disastrous result. It is not influenced by any remedies that have been tried; and the plan of treatment that has been found to answer best is to feed the patient by the rectum till the sickness ceases, some soothing emollient being applied to the epigastrium in the meantime.

In a few cases, where suppuration was already established, carbolic acid was tried as a curative agent, but the results were not such as to warrant a repetition of the experiments. In cases where confirmed suppuration, with an external vent, is already established, the attempt to stop it by active antiseptic measures seems to be productive of nothing but harm. The strong solution of the acid which has to be injected for the purpose seems only to irritate the pyogenic membrane, and to increase its secretion; the external dressings tend to dam up the pus thus formed; the pus has finally to be evacuated, and when evacuated is commonly found to be fetid. The history of these trials has hitherto been uniformly one of failure.

Reviews and Notices of Books.

Lectures on the Diagnosis and Treatment of Functional Nervous Affections. By C. E. BROWN-SÉQUARD, M.D., F.R.S., F.R.C.P., &c. Part I.: Physiological Pathology and General Therapeutics of Functional Nervous Affections. pp. 89. London: Williams and Norgate. 1868.

IN the four lectures included in this paper-covered book, a mass of information is contained such as would, in the hands of many writers, fill as many volumes. We know of no existing author who possesses more remarkably than Dr. Brown-Séquard the power of condensation; and in the present work this is exercised to an extent which makes it exceedingly difficult to review his book. Every page abounds with hints of the most interesting and practical character.

In Lecture I. the Causes and Diagnosis of Functional Nervous Affections are considered. Our author has already demonstrated that the nervous conductors serving to the following functions — the transmission of sensitive impressions, the reflex phenomena, the conveyance of nervous force to muscles or to bloodvessels, &c.—are absolutely distinct one from the other, as regards their special function. MM. Vulpian and Philippeaux have more recently proved that nerve-fibres are mere conductors, able to transmit nervous force either towards or from the nervous centres, and that the same nerve-fibre may serve to motion or sensation when transplanted from one nerve into another. At first sight there would appear to be a contradiction between these two assertions. In reality, both groups of facts quite accord with the well-established theory that the function of nerve-fibres depends, not on peculiar or specific properties of their own, but on the properties and functions of the organs into which they are distributed, and the parts of the nervous centres from which they spring. Almost all symptoms of functional nervous affections take place through an alteration of the functions of one or other of fifteen different kinds of conductors which are named. There are three modes of alteration:—1. A loss of power. 2. An increase of power. 3. A perverted or morbid state producing a great variety of phenomena. These facts form the groundwork, as it were, of the author's views, and distinct comprehension of them is necessary ere the other points dwelt upon can be followed. The variety of effects produced by an irritation of the same centripetal nerve is illustrated by the morbid effects caused by a neuralgia, and by those of an excitation of the skin of the neck by cold air, and of tickling the soles of the feet. The causes of increase of excitability in the various parts of the nervous system, and the extent of the normal and morbid influences of the nervous system on nutrition and secretion, are severally discussed. The lecture concludes with a very suggestive and useful exposition in parallel columns of the characters of functional and organic nervous affections. There is no subject probably in which a help to diagnosis is more valuable.

In his second lecture Dr. Brown-Séquard refers to the local application of narcotics, ice, and the actual cautery, amongst other means of suppression or diminution of the causes of functional nervous affections. Various means are proposed of diminishing the reflex excitability of the nervous centres. We are furnished also with various means of producing sleep. Some very important remarks are made upon the action of iron in improving nutrition. There is a too common notion that the greater the anæmia in a patient, the larger must be the quantity of iron which we must endeavour to put into him. Every day's experience shows the futility of this view, and that cases of chlorosis occur in which iron is absolutely useless. Our author remarks that modes of treatment consisting in attempts to furnish to the blood substances which are deficient in quantity either in that fluid or in the tissues, or to prevent certain secretions (sugar in diabetes), are gradually being replaced by sounder therapeutic principles. It has been shown by Sandras, Dalpiaz, Becquerel, and others, that chlorosis is a nervous affection, and that the deficiency of iron in the blood of chlorotic patients is an effect instead of a cause. Iron often serves to cure this condition, on account of its facilitating the transformation of food into blood, and its aiding the nutrition of the nervous centres. But other metals, which are not even normal constituents of blood-corpuscles, such as manganese and silver, sometimes act better than iron in cases of chlorosis and anæmia.

The third lecture deals with the moral, physical, and various other modes of treatment of functional nervous affections. The importance of serious mental occupation is considered. Amongst general therapeutic measures, we are shown the means of increasing and decreasing the quantity of blood in the limbs, trunk, and head; the value of irritation of nerves of the skin &c. as a means of curing a morbid state of nervous centre; the use of cold and heat; cauterisation of fauces and larynx; special use of anæsthetics, &c. There are especially two sources of error in the acquisition of knowledge respecting the mode of action of remedies—viz., 1st, the number and variety of parts on which the remedies may act to produce their effects; and, 2nd, the fact that physiologists have almost always in their experiments employed toxic doses. As an illustration of the first difficulty, the author, in his fourth lecture, instances the action of a remedy which produces constriction of the pupil. It may do this by paralysing a part of the spinal cord, or medulla oblongata, or the cervical sympathetic, or, lastly, the radiated fibres of the iris. Or there may be no paralysing action at all. The physiological influence may be an excitation of the base of the brain, near the origin of the third pair of nerves, or of the fifth, or the iridian fibres of the third, or some fibres of the ophthalmic branch of the fifth, or, lastly, the annular fibres of the iris. The effects

of belladonna in small and large doses furnish a good illustration of the second kind of difficulty. In small doses this drug diminishes sensibility, the reflex faculty, the tendency to convulsions, &c.; in toxic doses, on the other hand, sensibility and the reflex faculty become morbidly increased, and convulsions occur.

Expectations grounded on the chemical properties of the substances we try as remedies are very rarely verified. Compare, for example, the effects of iodide and bromide of potassium. Writing of the latter now famous drug, the author suggests that it may probably be found useful against hæmorrhage, as well as, what it has been proved by observers to be, a good remedy in photophobia, when used as a collyrium.

Dr. Brown-Séquard furnishes valuable information respecting his experience in the antagonism between certain remedies, such as belladonna, stramonium, hyoscyamus, and quinine on the one hand, and opium on the other. By availing himself of this antagonism between morphia and atropia, he gains — 1st, an addition to the good effects against pain of the two remedies; 2nd, the possibility of employing with comparative safety large doses of the narcotics. His chapter upon the association of remedies is also very interesting and suggestive.

We have done no more than glance at the contents of this able work. It will, doubtless, be extensively read by all those interested in the therapeutics of nerve disorder. Its brevity is not the least of its many recommendations.

A Treatise on the Diseases of the Eye. By J. SOELBERG WELLS, Professor of Ophthalmology in King's College, London, Ophthalmic Surgeon to King's College Hospital, and Assistant-Surgeon to the Royal London Ophthalmic Hospital, Moorfields. 8vo, pp. 741. London: Churchill and Sons. 1869.

PRACTITIONERS interested in ophthalmic literature have for some time been expecting, and have been prepared to welcome, the book that Mr. Soelberg Wells had announced as in course of preparation; and its advent will in no way disappoint their expectations. Externally a very handsome volume, beautifully printed, and copiously illustrated by well-executed chromolithographs and woodcuts, it perfectly fulfils, by the intrinsic merits disclosed to careful examination, the fair promise afforded by its exterior. The work is divided into seventeen chapters, and the diseases of the eye are classified, as a rule, with reference to the structures that they affect. A chapter is devoted to "Amblyopia and Amaurosis," and another to "The Anomalies of Refraction and Accommodation."

In discussing the causes of "diffuse corneitis," Mr. Soelberg Wells expresses his entire dissent from the doctrine that it is always the effect of inherited syphilis. He admits that it is "often associated with" this condition; but says that "in many cases not the slightest trace of a syphilitic taint could be ascertained." He thinks, also, "that we are often too apt hastily to jump to the conclusion that inherited syphilis exists, when, on a more careful and searching examination into some of these histories, it would be found that the miscarriages, early deaths of the children, &c., were due to perfectly natural causes, and quite independent of any syphilitic taint." Notwithstanding this, however, Mr. Wells admits that Mr. Jonathan Hutchinson has traced "a frequent connexion between inherited syphilis and many of the diseases of the eye, a discovery which has proved of great importance and use in the treatment of these affections;" and he prescribes a special treatment when "a syphilitic taint is suspected."

We cannot say that we gather quite clearly from this what is Mr. Wells's opinion about the nature of the connexion between keratitis and syphilis; and we suspect that he has not quite made up his own mind upon the point. The question is, in fact, neither more nor less than this: Is diffuse keratitis a late form of syphilis? or is it a disease to which the weakly and cachectic are prone, whether they are syphilitic or not? Is it curable by anti-syphilitic treatment, or does anti-syphilitic treatment only improve the general health, and with it the local affection? Between these views it may be right to remain in suspense while evidence is being collected; but they cannot, we apprehend, both be true. If diffuse keratitis be syphilitic at all, is it not so always? In many of the patients who suffer from it, the presence of a late form of syphilis is unquestionable; and the cases that now most require investigation are those in which no inheritance can be traced. It has even been suggested that, in these instances, the disease may be due to the introduction of a late form of syphilis through vaccination; and, in a few years, when the registers now kept by public vaccinators will render it practicable at any time to follow out the history of the child from whom lymph was taken for the vaccination of any patient, it may be possible to adduce evidence about a matter which now rests only upon conjecture. In the meanwhile, we would urge upon Mr. Wells, and upon all who possess opportunities approaching to his, to investigate, with the greatest care and accuracy, the cases in which the history of syphilis appears to break down; and to remember all the possible channels through which a form of the disease, that is neither primary nor secondary, may find entrance into the system.

On several of the most interesting questions in ophthalmology, Mr. Wells has already made his mark as a lecturer and an author; and what he has already written, while it has prepared the profession to receive his present work with welcome, renders it superfluous for us to speak of his opinions about glaucoma and iridectomy, or to praise his lucid account of the methods of selecting spectacles. We cordially congratulate him on the valuable and excellent book that he has produced; and we would strongly urge our readers to procure it, and to judge of it for themselves.

The Practice of Medical Electricity, showing the most approved Apparatus, their Methods of Use, and Rules for the Treatment of Nervous Diseases, more especially Paralysis and Neuralgia. By G. D. POWELL, M.D., L.R.C.S. Ireland, &c. Small 8vo, pp. 164. Dublin: Fannin and Co. 1869.

DR. POWELL is fond of using the verb "to electrify;" and considering that this verb has acquired a secondary and moral signification in addition to its primary and physical one, his use of it is not altogether without propriety. In the secondary sense, his book is well calculated "to electrify" the profession, both as regards its contents, and especially the violation by its author of the plainest rules of Lindley Murray. A writer who in the first dozen pages of a small treatise mis-spells Leyden and Berzelius, who writes "the *passage* of a succession of sparks *produce*," "the spot where the sparks leave the body, which is thus maintained in *wavering density*," "*we*, whose statues and ornaments are produced by electric agency, who *sees* rocks," "the *current* derived from these piles *are* variable," and presents other similar gems of composition, might safely be left to enjoy comparative obscurity. But electricity is still to some extent a *terra incognita*, and it is therefore specially necessary that the work of those who constitute themselves guides in that particular subject should be correctly estimated, so that the learner may not be misled by specious titles. Most of Dr. Powell's woodcuts are taken, without acknowledgment, from a recent paper by Mr. Radcliffe. We cannot recommend the book in any single respect.

OUR LIBRARY TABLE.

Medico-Chirurgical Transactions, published by the Royal Medical and Chirurgical Society of London. Vol. LI. London: Longmans. 1868.—This annual volume is not equal to its gigantic predecessor in size, containing but 300 pages, and consisting of thirteen papers, against twenty-four last year. Thirty-two papers were presented to the Society last session, and the selection which has been made cannot fail to be unsatisfactory to some persons; but, on the whole, more substantial justice has been done than on recent occasions. The volume includes papers "On Cholera," by Mr. Sedgwick; "Excess of Urea," by Dr. Fuller; "Bright's Disease," by George Johnson; "The Treatment of Cleft Palate in Children," by Mr. Thomas Smith; and others by Dr. Allbutt, Messrs. Callender, Birkett, and Bryant, &c. The referees of the Society seem to set their faces steadily against the admission of single cases, except in rare instances. Thus they have admitted a case of double axillary aneurism successfully treated by Mr. Furner, but have excluded the most interesting, if not unique, case of acute progressive paralysis by Dr. George Harley and Mr. Lockhart Clarke, to which we consequently gave admission in THE LANCET of the 3rd of October last. If single records of cases are not suitable for publication, we fail to see the reason for the insertion of Dr. George Johnson's seven cases of removal of a morbid growth from the vocal cords, which present no special novelty.

On the Results of Operations for Cicatrices after Burns. By J. H. JAMES, F.R.C.S., &c. 8vo, pp. 30. London: Churchill and Sons. 1868.—In this pamphlet the venerable author, notwithstanding age and blindness, enters an energetic and well-founded protest against the condemnation, in "Holmes's System of Surgery," of operations on cicatrices left by burns. Those who remember the early volumes of the Transactions, of what was then called the Provincial Medical Association, will also remember with what brilliant success Mr. James has operated on cases of this class—a success no less due to his great dexterity than to his care, skill, ingenuity, and infinite patience in after-treatment. We hail with much pleasure the work of a veteran who thus "shoulders his crutch and shows how fields are won;" and we think that the republication, in an accessible form, of Mr. James's methods, and of the evidences of his success, may justly encourage younger men to attempt the relief of those who suffer from the distressing condition of which he treats.

Clinical Lectures on Diseases of the Urinary Organs. Delivered at University College Hospital, by Sir HENRY THOMPSON, Surgeon-Extraordinary to H.M. the King of the Belgians, Professor of Clinical Surgery, and Surgeon to University College Hospital. London: John Churchill and Sons. 1868.—This little volume contains Sir Henry Thompson's lectures which lately appeared in our columns, somewhat amplified and revised in form. The author has, wisely, we think, preserved the easy colloquial style of the class-room as the most appropriate for practical purposes and clinical teaching. He says he has published them at the suggestion of numerous correspondents, known and unknown to him; and that they contain some of the fruit of a long and careful study. The author has undoubtedly enjoyed considerable experience in the treatment of diseases of the urinary organs; and these lectures, being clear and eminently practical in character, will no doubt be widely read.

The Climatic Treatment of Consumption and Chronic Lung Diseases. By JOHN C. THOROWGOOD, M.D. Lond., M.R.C.P., Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria Park, &c. Third edition. London: H. K. Lewis. 1868.—We do not know that there is anything very new in this little treatise, which contains a well-executed attempt to distinguish between the forms and stages of pulmonary phthisis and other lung diseases that are likely to be benefited by residence in a bracing air, and those in which the palliative effects of a sedative climate are advisable. The error which is sometimes perpetrated in selecting warm and relaxing climates is attributable to two causes—namely, the mistake of treating pulmonary disease without reference to the great differences which exist between its different forms and the constitutional diversities of patients on the one hand, and the custom of following in the wake of an old and false fashion on the other. We are convinced that an out-door life, remote from towns, in regions of considerable altitude, with a certain amount of what may be called "roughing it," exert a markedly curative influence in many cases; but the exercise of skill and judgment is required in making the selection. The book contains many sensible and practical remarks on the diet and regimen—in a word, the hygiene—of pulmonic invalids.

ON THE USE OF CARBOLIC ACID IN COMPOUND FRACTURES, WOUNDS, BURNS, AND GUNSHOT WOUNDS.

To the Editor of THE LANCET.

SIR,—Having used carbolic acid in numerous cases since its introduction by Professor Lister, F.R.S., I do not hesitate to say that I look upon it as one of the most useful of modern therapeutic agents in surgical practice, and worthy of that distinguished, original, and philosophical surgeon. By its use conservative surgery has been rendered still more conservative, and a vast amount of misery, discomfort, and mutilation avoided. Since its introduction our operations have been less numerous, although accidents from machinery and other causes have been on the increase, and of almost daily occurrence. I observe that the reports from some of the London hospitals have not been quite favourable, and I think it the duty of those connected with public institutions to give it a fair trial, and report accordingly.

In recent wounds our honorary surgeons generally use lint soaked in a liniment of one part of carbolic acid to five of linseed oil. This seems to possess healing, antiseptic, anti-purulent, and even anæsthetic properties in a remarkable degree.

In burns, as Professor Pirrie remarks, "It seems to accelerate the subsidence of local symptoms, to procure rapid and perfect relief from pain, and to promote healing without suppuration."*

We have at present under treatment two cases of gunshot wounds—one of the leg, with comminuted fracture of tibia and wound of posterior tibial artery, and the other of the hand, with severe laceration and destruction of soft parts. Both cases are recovering, carbolic acid having acted admirably. I may add that we have tried the carbolic lac plaster as prepared in Glasgow according to the recipe of Mr. Lister, and have found it very useful.

In short, I beg leave to confirm in the strongest manner all that Professors Lister, Syme, and Pirrie have said of this most valuable discovery.

I am, Sir, your obedient servant,

Kidderminster Infirmary, Jan. 9th, 1869. JOHN ROSE, M.D.

* See a valuable paper, THE LANCET for 1867, vol. ii., page 575.

THE works for the improvement of the river Cam have been commenced in good earnest. The *Atlas* remarks that the Improvement Commissioners of the University and town of Cambridge should put their shoulders to the wheel and devise an efficient mode of taking their sewage out of the river. It is satisfactory to believe that, sooner or later, they will be compelled to do so, and they will therefore be wise to make a virtue of necessity.

THE LANCET.

LONDON: SATURDAY, JANUARY 16, 1869.

OUTSIDE CRITICISM, as officials are apt to term public criticism, having been directed to the question of public expenditure, our War Office administration and military system come in for a considerable share of attention. It was very clear that a strong current had "set in" in a direction peculiarly disagreeable to many people; and it became very expedient, to say the least, that its diversion should be attempted at once. The suddenness and rapidity with which the fire was opened on the Army Medical Department suggested that it might be under the command and guidance of some official inspiration. The present time is singularly inopportune for an attack on that service. During the campaigns in China and Abyssinia it had proved very successful; the improvement in the sanitary condition of the British army since the Crimean war has been marked and progressive; and, according to all accounts, the candidates who have of late presented themselves have been exceptionally good and able men. Whatever may be the want of economy, it is chargeable upon the military and not the medical administration; or it is due to the character of our government, the extent of territory over which we exercise imperial sway, and the very nature of the services which medical officers have to render, and which are such as few civilians would undertake, or could possibly perform if they did.

A good deal has been said as to the duties of medical officers, and it has been suggested that these might be deputed to civilians, who would perform them at a cheaper rate; in short, judging from the illustration used, it has even been urged that our soldiers and their families—with the officers we presume—should be professionally handed over to the Poor-law medical officers of the parishes in which they are temporarily located. The utter absurdity of such a view must, we think, be apparent to everyone. Foreign and war service would, of course, be reserved for the unfortunate members of the Army Medical Department, which, under the circumstances, would speedily cease to exist. The competitive examination and careful special training which every medical officer has to undergo were, moreover, instituted to meet the demands of a public dissatisfied with the ordinary acquirements of young medical men.

The difficulty of properly apportioning the number of medical officers to that of the sick, and of meeting other requirements of a regiment or large body of men frequently changing its position, ought to be obvious enough after a little calm reflection. In an unhealthy climate the medical duties are increased fourfold; and it is very improbable that any reduction could be effected in the medical establishment of the British force in India. Although there is no necessity for the presence of three regimental medical officers at all times, whenever epidemic disease occurs—such as cholera—the only chance of safety lies in the breaking up and dispersion of the regiment. There must be medical officers to accompany these separate sections, for we presume the nation would not tolerate that our soldiers should perish of disease in a remote region, without any professional aid at all. Let a man's zeal and energy be what they may, he cannot discharge so much work in a tropical as in a temperate or cold climate. If a regiment be on home service the work is of course less; but it is entirely incorrect to say that its amount is to be measured by the number of sick in hospital—as if there were no sick officers with their families, women and children, garrison duties, parades, examination of prisoners, to be attended to, as well as numerous official returns to be made up. And, last and most important of all, the medical officers have to exercise a vigilant supervision over all the sanitary details connected with their regiments, and to carry on the official correspondence which is inseparable from medical charge of a corps. Large garrisons and standing camps can least of all be taken as affording a fair basis of comparison between the work performed in military and in civil life It is when the sick of several regiments are consolidated beneath one roof, and medical officers become aggregated together instead of distributed, that the professional duties fall so unequally, and so lightly on some of them. We have ourselves indicated a system of unification which would promote economy, prevent unnecessary waste of power, and allow medical officers a wider sphere for the exercise of their professional qualifications, as well as a larger amount of leave. Those who are crying out for economy are ignorant of the difficulty of the problem they propose to solve; and they even appear to us to have missed, in their zeal for an economical administration, some of the more prominent defects.

The public ought to be made perfectly aware that it was due to the late Lord HERBERT that such institutions as that at Netley and the Herbert Hospital at Woolwich originated. The medical department are in no way responsible for the existence or maintenance of these hospitals, and least of all for their administration. They are supposed to be conducted on the mode of what are termed general hospitals; but the opposition of the military authorities, as far as the Herbert Hospital is concerned, to anything but the regimental system is well known. Be the system what it may, however, it is the military and not the medical element of these institutions which entails the waste of money—the military governors, captains of orderlies, paymasters, and the rest. The institution of such a staff at all was a mistake; it costs a large sum, with no practical advantage of any kind—unless the introduction of circumlocution and the needless multiplication and probable collision of authorities be considered advantageous.

As to the charges which have been leveled at the heads of medical officers, we think the Netley professors may be fairly considered to have proved the groundless nature of them. The professors claim to have gauged the knowledge possessed by every medical officer for the past sixteen years. No man has better opportunities for comparing it with that possessed by civilians than Dr. PARKES, and he, in common with his brother professors, very temperately but emphatically denies that any difference exists, unless it be in favour

of the military. Candidates drawn from every school and medical university, possessed of surgical and medical diplomas and degrees in medicine, first of all, and selected by further examination, afterwards specially taught, re-examined, sent on service, and again re-examined, — the professors may well ask what the Government could do more to secure good men.

That a great change has already been inaugurated in all that relates to the foreign relations of this country, no one can doubt. It is very possible that the English army may have fired its last shot in any purely European struggle, and that another Crimean War will never be enacted. We shall restrict the force distributed over our colonies within the narrowest limits; but our sway in India will still necessitate the presence of a large British army there. When these things have come to pass, the medical department can, and will assuredly, be much reduced. Meanwhile, however, medical officers are not more climate-proof nor more exempt from sickness than other men: they die in relatively large numbers, and the numbers invalided are still larger. The short home service is a source of constant complaint by medical officers at the present time. We know how the profession views these hardships of a military life, and that it regards the emoluments as in no way equivalent to the risk. A life of expatriation, the discomfort of constant movement, the exposure to unhealthy climates, and the sacrifice of habits of domesticity, are repaid in a very niggardly way. Men at the end of twenty-five years' service prefer to hang on in a department in which they have possibly lost their health, and to discharge uncongenial work, in consequence of the retiring allowance being too small to permit of their educating their children and starting them in the social position they ought to occupy. Promotion, as it is, is very slow indeed; and if civilians are to fulfil the medical requirements of the army at home, it will be reduced to a stand-still. And when those at present serving in our colonies have been removed by death or invaliding, we may venture to ask our reformers, bent on retrenchment at any price, how they propose to fill their places without a large reserve at home?—and whether they are prepared to incur the extra expense which those who enter with the prospect of continuous foreign service will unquestionably demand and be entitled to, or to encounter the grievous break-down which must ensue in the first campaign of an army provided with an inadequate and inefficient medical service?

IT is extremely important that we should know all we can of the medical profession in the United States, and that the growing amity of England and America should have its fullest illustration in the mutual esteem and sympathy of the members of our profession on both sides of the Atlantic. It is possible that little clouds may now and again dim the brightness of the political sky, and move the crowd on either side to unworthy feelings; but surely one great function of the professions is to be serene and fair in judgment when those around are losing their judgment in feeling. How earnest, then, should be our endeavour to learn all we can of each other, to know all that is weak and all that is strong in each other's scientific or social position, and by friendly comparison favour the prosperity of the great medical fraternity in the two countries, and, through them, in the world. It is with this object that we devote some attention to the Address of SAMUEL GROSS, M.D., LL.D., which lies in full before us, delivered at the last annual meeting of the American Medical Association, a brief report of which we published in the course of last year. Dr. GROSS was the president of the Association. His address, though at points slightly too rhetorical and flattering, deals faithfully and candidly with some very important questions affecting the character of the medical body and its interests in the United States: amongst others, with the constitution of the American Medical Association itself, and the character of its Transactions; the subject of medical education; medico-legal evidence, and the question of experts; the grade and pay of the medical corps of the navy; the need for an annual register of the members of the regular profession; the establishment of societies for the relief of widows and orphans; the low condition of the veterinary art in America, and the want of veterinary colleges, &c.

The constitution of the American Medical Association is open to criticism. We gather from Dr. GROSS's address that it is, if anything, too promiscuous in its constitution, and that a little more stringency of admission would add to the strength and dignity of the Association; "the alleged laxity has prevented some of the older and more influential members from taking that active interest in its prosperity and permanency which they would otherwise have done." Any change, however, in the direction indicated would have to be made with care. As we shall see shortly, the materials for judgment of the worthiness of applicants for admission are less satisfactory than even with us. And it is better to err on the side of generosity than of severity in forming an Association which may unite the profession in efforts to secure its own recognition and elevation.

In connexion with the constitution of the Association the President makes pertinent mention of "much complaint made from time to time respecting the character of the 'Transactions,' on account of their bulk, the nature of their contents, and the expense of their publication." By all means, we should say to the Association, aim high in the matter of the published "Transactions," and exclude all that is not founded, in the excellent words of Dr. GROSS, on "elaborate experiments, original observation, or accurate clinical experience." Authors are to blame for reading wordy and worthless papers, but Societies are to blame for giving them literary permanence. A good Society will, *ceteris paribus*, be known by the small bulk of its published "Transactions."

By far the most important subject treated of by Dr. GROSS is that of the state of medical education in America. The importance of it may be gathered from his candid but serious admission that, "except in a few honourable instances, no material changes have taken place in the curriculum of instruction in our schools within the last half century." This is the real hindrance, not only to the profession attaining its full influence in America, but to the recognition of its members in our own country. It obviously would be impos-

sible for our Medical Council, however much disposed—as an act of international courtesy and good will,—to recognise to any extent the curricula and diplomas of the United States so long as the President of the American Medical Association has to make an admission of this kind. But let us not too readily conclude as to our own superiority. Our own standards of education have been far too stationary for fifty years past, and, taken singly, have been very imperfect. If we have got a Medical Teachers' Association, America has a Medical Teachers' Convention, at whose instigation, at the last meeting of the Medical Association, the subject of Medical Education was brought forward more clearly and forcibly than at any previous time. They submitted "a plan of college requirement and instruction which only awaits, as far as its practical application is concerned, the sanction of the principal Schools of the country for its general adoption." We should be glad to see this plan, and it is to be sincerely hoped that views will be exchanged both between the Teachers' Convention of America and our own Teachers' Association, and between it and the Committee of our Medical Council on Medical Education now sitting. By this simple procedure a direct and easy comparison of the position and prospects of medical education in the two countries would be possible. Practically the difficulties of America in this matter are our difficulties, and conspicuous amongst these is the number and rivalry of Schools, making competition keen. "The Schools," says Dr. GROSS, "are afraid to elevate the standard of requirements without the general co-operation of the Colleges, lest they should suffer in the number of their pupils and the amount of their emoluments." Now that this momentous subject has been fairly brought under the notice of the Medical Association of America, we hope it will not be allowed to rest till a minimum standard of attainment in education is agreed upon, to which, by the force of public opinion, the various Schools shall virtually be compelled to bring up their pupils. We should, in leaving this subject, say that the conclusion we have arrived at in this country is, that no improvement in the curriculum of study will avail much if it is not preceded by, or, at any rate, accompanied with, an improvement in the examining bodies.

Dr. GROSS, impressed with the unsatisfactory way in which medical evidence is taken in courts of law, suggests the appointment of a medical commissioner in every medical district, to assist judges and juries by summing up in writing the medical testimony. To this suggestion he added a further one, that this commissioner should have two assistants, to make all post-mortem examinations, and to examine the living in all cases of alleged crime involving medical points. The doubtful part of this suggestion is the latter part of it. We are suspicious of the creation of a class of special experts to supersede the evidence of medical men, who are, of necessity, experts. No number of post-mortem makers can supersede the evidence of medical men enjoying the confidence of the public.

The position of the medical corps of the American navy is apparently very unsatisfactory. The medical officer cannot attain to a higher rank than that of commodore; whereas, in the French navy, he may attain to the rank of admiral; in the English, Russian, and Spanish, that of vice-admiral; and in the Austrian, to that of rear admiral. The pay is bad, even worse than the rank. The highest pay that the oldest surgeon on the active list can receive, after nearly forty-two years of service, is 3300 dollars. The youngest captain in the navy is entitled to an income of 3500 dollars, with a service only of twenty-nine years. The quarters of the surgeon are also very inferior to those of the captain. It is amazing to see a country like the United States treating her medical officers in such a manner.

There are many other subjects of great interest in the President's address, which we have not left ourselves space to notice as we could have wished. Dr. GROSS complains with great justice of the low state of veterinary science and art in America. There are few veterinary colleges, and these are not organised on a proper basis. Most of the practitioners are the merest pretenders and charlatans. Not only in the interest of the lower animals, but for the promotion of medical science in its largest sense, the cultivation of comparative pathology and therapeutics is necessary.

Next in importance to that part of the President's address treating of the defects of medical education in the United States, is that in which he shows the want of an annual register of the members of the profession. He suggests that the Association should give its sanction to a directory after the manner of Churchill's Directory in our own country. But, considering the importance of a proper registration, we would urge the Association to move for an official and authoritative register like our own, and that of various colonies, which alone should be evidence in courts of law of the needed qualification. This, we suspect, is an indispensable step to the more complete organisation and elevation of the profession in the United States.

IN the last number of the *Archives Générales de Médecine* is contained the translation of a paper by Dr. JÓN FINSEN, "On the Echinococci of Iceland." The extraordinary frequency of the occurrence of these parasites in Iceland has long been known. Dr. SCHLEISSNER estimated that actually one-seventh of the whole population was thus affected, though his observations, founded on his own and Dr. THORSTENSEN's experience, were certainly not numerous enough to warrant such a statement. Dr. LEARED, again, who has visited the island on several occasions, and whose estimates are supported on the evidence of Dr. HJALTELIN, considers that out of every five fatal cases one was the result of this disease. Dr. FINSEN states that from the year 1867 he has taken accurate notes of all the cases which have fallen under his notice. The district under his care was the southern portion of the North Bailliage, and the population was about 10,000. He found the proportion of cases of echinococcus to that of other forms of disease only as 1 to 33·5, and this probably must be considerably diminished if all the inhabitants of the island be included. From inquiries made of intelligent farmers, combined with his own statistics, he is of opinion that 1 to 43 may be taken as the approximative proportion of those affected to the whole population. He finds that in more than 92 per cent. of the cases the malady commenced in the abdominal

organs, the liver being the *point de départ* of 64·9 of these, whilst it was primarily developed in the lungs in only 2·7 per cent., and in the external tissues of the body, as the axillary region, head, &c., in 5·09 per cent. The rare occurrence of the disease in the lungs in man is remarkable, as it is very frequent either as a primary or secondary affection in these organs in sheep and horned cattle. As a rule, only one hydatid tumour develops in man, but this often attains a large size, again strongly contrasting with the smaller tumours that form in cattle. In one instance the volume of the tumour was equivalent to eighteen litres, or about four gallons. It is generally stated that large cysts contain secondary vesicles; but this is not in accordance with Dr. FINSEN's experience, as he found secondary vesicles only nine times in forty-eight cases.

As regards the symptoms of hydatids when they occur in the abdomen, it is acknowledged on all hands that they are extremely slight; the first being pain, of a more or less stinging or pungent character, often experienced beneath the clavicles and scapulæ; subsequently dyspepsia, with nausea and vomiting, occur—symptoms that are probably attributed to pressure. Jaundice he found was very rarely present, occurring only seven times in 166 cases.

As respects the etiology, there can be no question that it proceeds from the tænia echinococcus of the dog; these animals being numerous and very domesticated in Iceland, and all the stages of their development having been repeatedly followed. He found that women are more frequently affected than men, in the proportion of 2·4 to 1, which he attributes to being more confined in the house, cleaning up the dishes, &c., which are often licked by the dogs. The age of from twenty to thirty is that at which the greatest proclivity to the disease exists. He denies the statement that the urine or excrements of dogs are ever employed, as has been stated in various works, as remedial means by empirics; but he thinks that the contusions to which the natives attribute the occurrence of hydatids may oftentimes really cause the development of a previously latent germ. The transformation into a calcareous or osseous tumour is rare; but rupture, which is the usual termination, often leads to a cure, the tumour bursting either through the abdominal walls, through the back, into the peritoneal cavity, into the intestine, into a bronchial tube, or elsewhere. When the tumour bursts into the peritoneal cavity, relapses occasionally occur.

After the rupture of an hydatid tumour through the abdominal parietes, he has remarked the appearance of an exanthematous eruption on different parts of the body resembling urticaria; and considers that the presence of this in a case where an abdominal tumour has suddenly disappeared may be regarded as pathognomonic of its having opened into the abdominal cavity. This accident does not seem to be so fatal in Iceland as elsewhere; for, whilst FRERICHS cites as a rarity the survival of a patient for fifteen days, four out of six cases seen by Dr. FINSEN recovered.

Coincidently with the above, a paper has appeared in the first number of BROWN-SÉQUARD's *Archives of Physiology* for the present year, by M. CARRIÈRE, who gives a good description of alveolar or multilocular hydatid tumour, showing that this disease, formerly enumerated amongst the gelatinous cancers on account of its colloid aspect, is really produced by echinococci, as had already been established by VIRCHOW, by whom the characteristic hooklets had been discovered. Its most common seat is the liver; its usual size, though varying much, that of an apple. It is well defined at the periphery. Its cut surface is smooth, and presents the appearance of a matrix through which small transparent masses are distributed, with scattered spaces or alveoli filled with a viscid puriform liquid. It appears to commence in one of the biliary or vascular canals when it attacks the liver, but its mode of origin in the lungs and peritoneum is unknown. In the former case it induces either jaundice or dropsy, or both. Treatment has not been found, in any instance, to influence the course of the affection.

Medical Annotations.

"Ne quid nimis."

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

WE wish to direct particular attention to the very important paper by Dr. Gull and Dr. Sutton, on the Natural History of Rheumatic Fever, read before this Society on Tuesday evening last, and of which an abstract appears in our present number. At the suggestion of the President, the debate was adjourned to the next meeting; and in the meanwhile the Fellows will have opportunities of considering the questions that have been raised, and of recalling their own experiences with regard to them. We purpose to report the discussion as a whole; but may state in this place that only Drs. Fuller, Gull, Stewart, and Dickinson have as yet spoken, and that Drs. Fuller and Dickinson, as representing St. George's Hospital, strenuously opposed both the statements and the opinions of the authors of the paper. Dr. Fuller avowed his unshaken belief in the utility of alkaline treatment; and Dr. Dickinson cited figures from the register to show the frequency of heart affection at comparatively late periods of the disease. We regret to add that these differences of opinion were expressed in terms which did not seem to us befitting the dignity of the Society. One speaker referred to probable or possible errors of diagnosis, as between gonorrhœal rheumatism and rheumatic fever; and another retorted that the supposed occurrence of heart disease in the later weeks was perhaps due to its existence having been overlooked during the earlier ones. We think that Fellows of the Society, and physicians to great hospitals, owe it to the profession and to themselves that they should abstain from casting about conjectural imputations such as these, and that they should not accuse one another of inaccuracy or of negligence, except upon a basis of carefully determined facts and under a sense of very grave responsibility. It is much to be wished, moreover, that the practice of applauding papers and speakers were discontinued. We well remember the emphatic condemnation of this practice that was uttered by a former president on the occasion of his assuming the chair. He said that an assemblage of scientific men, met together for the promotion of scientific ends, should listen in respectful silence to the observations that were addressed to them, and should not, by unseemly plaudits, degrade each other to the level of actors or of after-dinner orators. In this opinion we most entirely concur; and we feel strongly that the Fellows of the Society, by maintaining the highest standard of de-

corum, of courtesy, and of mutual respect in their debates, will best promote the attainment of their own objects, and will best consult the honour of the profession.

SCARLET FEVER IN THE METROPOLIS.

A DETAILED account of the prevailing excessive mortality from scarlet fever in London appears in our present number; an account showing, among other things, that this mortality has been the greatest in localities largely inhabited by people in comfortable, or even affluent, circumstances, and therefore supporting to some extent the conclusion that general sanitary conditions have little influence upon this particular malady. We have no means of knowing in what proportion the epidemic has prevailed among the richer and the poorer classes respectively; but we have a strong general impression that, among the former, its diffusion is very largely due to culpable carelessness, on the part of the rich and of their friends, in what are called slight cases of the disease. The views that have been published by Dr. Budd will, we hope, do much to call public attention to the matter, and to educate public opinion with regard to the duty of isolating the patients, and of using all practicable means of preventing the spread of contagion. Dr. Budd's advice seems to us to be highly important, very practical, and simple with the simplicity that characterises genius. We shall be glad to hear that the suggestion of oiling the skin, in order to fix the desquamating epidermis, has been generally adopted in practice, so that its efficacy may be tested on a large scale, and by many observers. We are not aware on what evidence, other than analogy, Dr. Budd rests his opinion about the infectious character of the alvine and renal discharges, and about the probability of sewer infection through their means; but we would strongly urge that the whole question should be made the subject of immediate inquiry by the Medical Department of the Privy Council. There is every reason to fear that the present epidemic in west and central London will last long enough to afford ample materials to Mr. Simon and his coadjutors, and to enable them to determine with authority the accuracy of Dr. Budd's facts and the value of his recommendations. A work of this kind would have an immediate practical outcome of a kind to be appreciated by Parliament and by the public, and would greatly strengthen the hands of the department with regard to labours of a more recondite and less immediately useful character. Both for the sake of the importance of the subject to the community, and for the sake of demonstrating the value of our single rudiment of State medicine, we hope the next report of the Medical Officer of the Privy Council will show that the present opportunity has not been suffered to pass away unimproved.

HILL STATIONS IN INDIA.

IN a forcible article commenting upon the recent statistics of sickness and mortality furnished by the Sanitary Commissioners of the Bengal and Bombay Presidencies for the year 1867, the *Delhi Gazette* shows how urgent is the need—and we have repeatedly pressed the matter upon the notice of the authorities—of providing hill stations for a larger number of troops in India. In 1867, in Bengal, the total loss of men by disease was 78·23, and in Bombay nearly 75, per 1000. The corresponding loss for the five years ending 1855 was 75·7, or less than in 1867. But though the totals are so near, the separate rates of mortality and invaliding have relatively varied, the former having increased, whilst the latter has diminished. The conclusion which is drawn from these facts is, that there is an average amount of loss to the service necessarily consequent upon residence in India under present conditions, in spite of sanitation. The only way in which this mortality can be lessened is by removing every soldier that can be spared to the hills—by at once ceasing to regard residence in them as curative only, and not also as a preventive measure. There seems to be no valid strategic reason why this should not be done to a very large extent. It is certainly difficult to understand, in the face of so plain a duty, the shortsightedness of that policy which insists upon the presence of so large a part of our Indian army in the plains—a policy that would be terribly retributive in any serious and prolonged European complication in which England might be involved, and compelled to stop the supplies of men to India, and even seek aid from that country.

TYING THE CAROTID UNDER DIFFICULTIES.

A CASE of some interest to surgeons is at present to be seen in the Fitzwilliam ward of St. George's Hospital. It is that of a soldier, aged forty, whose carotid was tied by Mr. Henry Lee for aneurism, and in this wise. On New Year's Day, while stretching his neck and combing his whiskers, the man saw a discoloured mark on the right side of the neck, and thought it was a boil. This increased, and he was admitted on the 3rd into hospital. On the 8th, the skin had suddenly become much discoloured, and the tumour had gradually increased to the size of a small orange, expanding uniformly over its entire surface at each pulsation. It was then decided that an operation should be undertaken, and an opinion was expressed that it might be better to open the sac and tie the end of the arteries. However, Mr. Lee decided otherwise, and made a semicircular incision round the inside of the tumour, from its lowest point to the sterno-clavicular articulation; and then a novel difficulty presented itself. The parts were found to be matted together on account of the sloughing which had taken place some time ago. However, some loose cellular tissue which had not been affected by previous disease was found, and the artery was reached from its inner side. The jugular vein and pneumogastric nerve, as well as the mass of thickened material which lay immediately over the artery, were avoided. The complication mentioned depended upon an old phagedenic ulceration, which had destroyed a large portion of the sterno-mastoid; none of the usual landmarks, therefore, could be made use of. This ulceration was caused by a bullet wound received five years previously, the wound having remained open for about a year. On the 11th inst., when we saw the case, the tumour had much diminished in size, the pulsation had gone, the skin over the tumour was of natural temperature, the pulse was quiet, and the man expressed himself as being quite comfortable.

THE STRAND "DEAD-HOUSE."

IN reference to our observations on this subject last week a paragraph communicated to the *Daily News*, from a correspondent "writing with full knowledge of the facts," throws some doubts on the accuracy of such of our statements as are supposed to reflect on the colleagues of the deceased clerk in the Audit Office. We have only to say that we imputed no want of feeling to the *clerks* of that department, for we were aware that some of them had expressed before the coroner their indignation at the manner in which the body of their colleague had been treated. But it was quite clear to us from the facts within our knowledge that *some one* at the Audit Office was responsible for permitting the removal of the body, and it was our object to excite such further inquiry as would fix that responsibility on the right person. We were satisfied when we wrote last week that the removal was unjustifiable, and inquiries since

made with a view of testing the trustworthiness of the representations made to the *Daily News*, enable us emphatically to assert that "the coroner's instructions to remove the body home" had no existence in fact, that it was so removed "late at night" without any proper authority; and were we writing about the matter *de novo*, we should with our present knowledge increase rather than abate the force of our condemnation. We repeat that heavy blame has been incurred as between the Audit Office and the coroner (by his officer). It is not for us to apportion that blame; but anybody who will take the trouble to investigate the matter, as we have done, will have no difficulty in apportioning it.

THE PARISH DOCTOR.

AN exceedingly good and interesting account of the arduous labours of a parish doctor appeared in the *Daily Telegraph* of Jan. 9th. The author was fortunate in the companionship of Mr. Benson Baker, one of the most energetic district medical officers in the metropolis. He describes the wretched condition of the hovels in which disease makes such sad havoc with the independence of the working classes, and the fearful difficulties under which the medical officer performs his duties. If the President of the Poor-law Board would devote a day or two to a similar investigation, he would learn more of the real source and extent of pauperism than by the most careful inspection of workhouses, or by the longest interviews with boards of guardians. It is in the miserable dwellings of the poor that the evil of pauperism begins, and a sight of it would convince the most sceptical that the expenditure of millions in workhouses and sick asylums will not reduce the need for preventive measures where they alone can be successful. We doubt not that "Always with us" will contribute to this result.

THE CLINICAL SOCIETY.

THE first annual meeting of the Clinical Society took place on Friday, the 8th instant, and was well attended. From the Secretary's and Treasurer's reports the Society appears to be in a flourishing condition as respects numbers and funds, there having been 191 members at the end of last session, and seventeen new members having been elected this session. The funds were in an unexceptionably favourable condition, notwithstanding the absence of entry fees last session, thanks to the liberality of the Medical and Chirurgical Society, which made no charge for the use of its rooms enjoyed last year, though it would not reduce its permanent terms in favour of the younger Society. The proposed new list of officers was carried unanimously, and thus Mr. Paget will succeed Sir Thomas Watson in the President's chair, and some slight modifications will be made in the list of Vice-presidents and Council; the honorary secretaries and treasurer remaining as before. In acknowledging the vote of thanks given to the retiring officers, Sir Thomas Watson took occasion to congratulate the Society on its success so far, though he could have wished that it had been a little more decidedly therapeutical in its papers and discussions. He took the opportunity also to clear up some misunderstanding which he was told had arisen respecting his opening address, and expressed his firm belief in the therapeutic efficacy of drugs, believing that an all-wise Creator had implanted in certain substances medicinal powers for the benefit of humanity, which, however, required human effort for their discovery. The President then took leave of the Society.

The first paper of the evening was by Mr. Moore "On Acupressure of the Brachial Artery for Acute Suppuration of the Hand" in a pregnant woman, in whom the plan seemed to have had good effect. A lively discussion followed, in which Mr. Durham and Mr. Carter recommended recourse to position and pressure respectively, in preference to a serious operation; whilst Mr. Heath urged a greater reliance upon the use of drugs whose direct action is to check inflammation.

The second paper, by Mr. Thomas Smith, was "On the Practice of Puncturing Over-distended Intestine" for the relief of the patient's sufferings, and was also fully discussed, some amusement being caused by the narration of a case in which a canula had been left in a distended bowel, and by the vehemence of one speaker who has become somewhat noted in medical societies for his vigorous oratorical efforts.

CONVALESCENT HOMES.

THE governors of the Tynemouth Infirmary are debating whether they shall establish a convalescent hospital in connexion with their institution. Some friend suggested that one or two wards might be set apart for the reception of convalescents from town, but the governors feel that such a scheme could only be carried out by adding to the present building. This involves the question of the establishment of convalescent departments under the same roof as that which covers the general run of cases undergoing ordinary treatment. Such an amalgamation we have no hesitation in saying would be altogether a mistake. Convalescent institutions should wear as little the aspect of an hospital as possible, and be founded where fresh air and lively scenery can be obtained, and away from the atmosphere of hospitals. There may be exceptions in which this rule may be departed from, perhaps at Tynemouth. But, speaking generally, convalescent institutions should possess the characters of a home rather than an hospital, and therefore the more the hospital character is kept in the background the better.

THE MEDICAL OFFICERS OF THE HOLBORN UNION.

THE Holborn Union is divided into three districts, and each medical officer receives £125 per annum, with the usual extras. At the time when this arrangement was made, the work of each medical officer was nearly the same: the respective number of patients in six months of 1857 being—No. 1, 825; No. 2, 625; No. 3, 599. Since that time great changes have taken place. The district of Back-hill is now much more densely populated, the people more pauperised, and the number of cases attended by the district medical officer has more than doubled, the number being 1763 for the last half year. Dr. Roberts having found it impossible to attend properly to so large a number, even with the aid of an active qualified assistant, requested that a redistribution of the medical duties should be made. This the guardians refused to do. Dr. Roberts then asked that he should be paid *pro rata* for the excessive number of patients, taking as a basis the highest number of cases attended by either of his colleagues, in order that he might employ an extra assistant. This reasonable proposal was also passed over in silence. A third application was then made for an increase of salary, which was referred to a committee. At the last meeting of the guardians, a motion was made that the salary of Dr. Roberts should be increased from £125 to £150 a year, but was lost, owing, it is believed, to a statement that Dr. Roberts does not personally visit all his patients. Considering that Dr. Roberts originally complained of the impossibility of doing so, and asked for a redistribution of the union work, of which he had so unfair a share, this excuse is scarcely just. If the out-door medical officers were subject to inspection, such inequalities

of pay and duty could not be permitted to exist. All the district medical officers of the Holborn Union are overworked, and would be thankful for a thorough investigation of their present position. They have been waiting anxiously for the introduction of the dispensary system; and there is not one who would not submit to a considerable reduction of salary if he could escape the nuisance of seeing daily a crowd of paupers at his private residence, and the expense and trouble of supplying them with medicine.

A COUNTRY INFIRMARY.

OLDHAM, in Lancashire, is a thriving town, having some 9400 inhabitants, who have resolved to provide themselves with an infirmary, the desirability of which is undoubted. In order to determine the best situation for the proposed infirmary, the General Committee requested the secretary to call a meeting of the medical men of the borough, with the view of eliciting their opinions touching the sanitary condition and respective advantages of two sites which had been offered for the purpose. The medical men reported, that though there were serious objections to both sites, yet the suburban was infinitely preferable to the more central one. This decision it might have been reasonably supposed would have settled the question; but the General Committee, a few days later, completely ignored the opinion of the medical men, and selected the central, or most inappropriate, site.

But, it will be asked, where were the medical men that they allowed their report to be overthrown unchallenged? The answer is that the General Committee was composed solely of *subscribers*, who went so far as to invite their brother subscribers to attend and discuss the question, but excluded the medical men, who, for reasons which do them honour, and to which we shall at once advert, decline for the present to support the proposed institution. The medical men of Oldham, twenty-two in number, in effect say, very reasonably, "Let us not, in our efforts to aid suffering mankind, be untrue to ourselves. We have seen the evils which have resulted at Birmingham and other great towns from the profession being ready to do gratuitous work for other people's glorification. Let it be openly stated that the subscribers of the Oldham Infirmary intend to remunerate their officers fairly for the work they do, and we will most readily subscribe and lend our aid in establishing the institution." Dr. Thom Thomson and his brethren will, we feel sure, have the support of all men who have given the great subject of gratuitous medical relief their attention. The wealthy manufacturers of Oldham have no more right to call upon the medical profession to attend their poor *gratis* than they have to call upon the shopkeepers to supply bread and meat for their support. If the committee employ a lawyer to draw necessary deeds for the infirmary they will pay him, if they appoint a chaplain they will remunerate him; why then should our brethren spend time and labour for nought, and even for less, since now attendance on cases of accident occurring at the various works is paid for by the masters, whilst for the future all serious injuries will be, as a rule, transferred to the infirmary?

We rejoice to find that both the *Oldham Chronicle* and the *Oldham Standard* take the same view with regard to the treatment the medical men have received, and the attitude they have adopted. The latter journal, in an able leading article on the subject, has the following important passages, which we commend to the attention of our provincial brethren:—

"To silence the voice of the medical faculty because their names do not yet appear for large sums of money is both unjust to them and a grievous injury to the community at large. How can the professional men of the town give their subscriptions before they know what the proposals are for the provision of medical attendance, and are made aware of the extent to which the new charity may demand from them serious sacrifices of time and income? For anything known to them or to us they may be made the largest contributors by far to the institution; and we are quite certain that no plans can possibly succeed which do not meet with the approval and hearty co-operation of the members of the faculty..... Will large employers be chiefly benefited by the new charity? Will the non-employing public be called on to bear in part a burden which has hitherto rested on other shoulders? Will the medical men be expected to add to their present laborious practice the duty of honorary attendance at the infirmary? Will the largely over-taxed worshipping class be called upon for annual collections to keep the charity from collapsing altogether? How can the institution be prevented from drifting into the hands of a mere political clique? In what way is it hoped to prevent the abuses which were so ably specified at the late Social Science Congress? And, above all, what real advantage will the working man derive, in case of accident, who receives, on our present system, the best surgical attendance at the expense of his master?.....Would it not be better if the medical officers were remunerated, as it is declared by distinguished men in the faculty that 'gratuitous medical labour is the greatest bane of the profession?'"

THE ADULTERATION OF FOOD AND DRUGS.

A VERY interesting article on this subject will be found in the current number of the *Westminster Review*. It is specially interesting to us, as it attributes high importance in the history of investigation into adulteration to the Analytical Sanitary Commission of THE LANCET, and acknowledges in fit terms the fairness and sagacity of the late Mr. Wakley. His sense of fairness greatly conduced to strengthen the proof of an inveterate and extensive habit of adulteration in trade. For three months before commencing the series of analyses with which Dr. Hassall's name will always be associated, he publicly advertised his determination to publish the results in connexion with the names of the dealers. Our contemporary shows how futile the legislation on this subject has been, and how necessary it is to amend the Act of 1860 for Preventing the Adulteration of Articles of Food or Drink, and to extend the Act to the case of adulteration of drugs. The Act of 1860 was merely permissive, and the fines imposed by it were small. It is unpleasant to think of the significance of the indisposition in Town Councils and other local authorities to apply and enforce legislation of this kind. In France, Belgium, Holland, Austria, Sweden, Denmark, Spain, in every Continental nation, according to the *Westminster Review*, legislation is effective against this deep immorality of trade. So, also, in the United States. But with us legislation is a dead letter. The latest reports of Mr. Phillips, the chief chemical officer of the Board of Inland Revenue, go to show that the vice of adulteration is only more ingenious, and not less extensive than it used to be, as far as commodities liable to duty are concerned. It remains to be seen whether a new Parliament will deal more earnestly with this question. If it has any disposition to do so, it is not likely to be without the opportunity, as a Bill, the general features of which are approved by our contemporary, is already in existence. It was framed by Mr. Postgate, of Birmingham, a member of our profession of high authority on this matter. It was read a second time last session, and then fell before more exciting subjects. The most essential provisions of this Bill are—that it applies equally to drugs and goods, that it increases the maximum fines, and that it makes the appointment of analysts by local authorities compulsory, and ensures their being supplied, from time to time, with materials for analysis by Inspectors of Weights and Measures. We have done our share in this matter, and

it remains now for the general press to urge it upon the Legislature, in the interest alike of public health and public morals.

THE COLLEGE OF SURGEONS.

THE Council, at its meeting on Thursday, the 14th inst., was occupied with the discussion of various matters affecting the financial position and general management of the institution, to which we shall refer in detail in a future number.

KING'S COLLEGE HOSPITAL.

WE regret to hear that the surgical registrarship at this hospital is at this moment going a-begging, there being no student willing to undertake the duties under the conditions with which its founder, Mr. Sambrooke, has thought fit to saddle the office. The registrarship is, we learn, tenable for only one year, the emolument being £50, and the holder being expected to devote his entire time to its duties. It is obvious that no young surgeon will lay himself out for such a post if it is only an annual appointment; and it appears to us that to have a new registrar every year is the very way "not to do" registration of hospital cases.

THE VICE-REGAL COURT.

UNDERSTANDING that the nomination of the medical officers to the new Lord-Lieutenant of Ireland will shortly take place, we venture to express a hope that in making these appointments the advisers of the Queen's representative will have due regard to the professional status and social position of the gentlemen thus to be honoured, and will not allow his Lordship to be made the tool of a *clique*, or become the victim of backstairs influence. The appointments to the Irish Court are of a less permanent character than those to Her Majesty herself, but they are little less important in the eyes of the profession, and demand as great care in the selection of their incumbents as any similar offices in this country. We have had recently to deprecate one—perhaps the only one of the present reign—unfortunate Court appointment, and we trust that the very strong and decided opinion which the occurrence has elicited in professional circles on this side of the Irish Channel will prevent any attempt at its repetition on the other.

THE EPIDEMIOLOGICAL SOCIETY.

THE Epidemiological Society was occupied, during its meeting on Wednesday evening, in hearing and discussing a paper, in which Dr. Macpherson set forth an abstract of Professor Pettenkofer's views about the fluctuation of the level of subsoil water (Grundwasser) as a cause or condition of the development of cholera. The paper had an especial reference to Munich, Lyons, Gibraltar, and Malta, as affording facts in support of the Professor's hypothesis. It was suggested that the comparative immunity of Lyons from cholera was due to its position with regard to the levels of the Rhone and the Saone, by which its subsoil water was maintained at a nearly constant height; and it was said that the only formidable outbreak of cholera at Lyons coincided with a time at which the river levels had been unusually low. Professor Pettenkofer had recently visited Gibraltar and Malta, and believed that he found in both places evidence in support of his favourite doctrine. At Gibraltar there were wells of very variable depth; and at Malta the rock was, he said, a sponge, capable of absorbing one-third its bulk of water. He expressed a hope that the facts bearing upon his views would be investigated, at the public cost, in places where cholera prevailed. In the discussion which followed, and in which Dr. Macpherson, who gave a summary of what the Professor had written, but who was not understood to endorse it, did not himself take any part, it was very manifest that the members of the Society inclined to a position of suspended judgment with regard to all the hypotheses explanatory of the spread of cholera that have as yet been advanced. The President (Dr. Seaton) referred with pleasure to the despatch of two army surgeons to India for the purpose of inquiring into facts; and the general feeling was evidently that the data at present known were altogether insufficient for the formation of any positive or trustworthy conclusions. The discussion was continued to so late an hour that a paper by Dr. Weber, on some cases of Relapsing Fever in the German Hospital, was unavoidably postponed. Dr. Weber stated, however, that there had been seven such cases, all of them in Polish Jews, and that some of the patients had very recently arrived in England, while others had been for some time resident here. The occurrence of this very unusual disease, and the circumstances of its introduction and diffusion, are alike of much interest, and Dr. Weber's paper will, doubtless, afford profitable employment for a future meeting.

THE REVERSAL OF A GOOD JUDGMENT.

IT may be remembered that in the course of last year we noticed with much approval the judgment of Lord Jerviswoode (the Lord Ordinary of the Court of Session) in the case of Kennedy *v.* Ness. The case was one in which the parochial board of East Wemyss objected to pay at the rate of three guineas per day the executor of the late Dr. Kennedy, who had charged at this rate for his special services during the outbreak of cholera. Dr. Kennedy's services had been most prompt and efficient, and alas! they were fatal to him, for he caught cholera and died. The sum charged by Dr. Kennedy's executor was £130. The defence before the Lord Ordinary was that the defenders had offered £50 as a sufficient remuneration. The Lord Ordinary decided in favour of the executor's charge, as not unreasonable. He especially objected to the argument of the defendants, that the remuneration should turn either upon the number of cases attended, or upon the measure of the ability of the poor themselves to pay. Society was interested in the limitation of the number of cases, which is a principal object of any special medical labour during a cholera outbreak. Unfortunately, the very just and humane judgment of the Lord Ordinary has in another trial been set aside by the Lord President and the other lords. The Lord President thought that the Lord Ordinary had proceeded on a mistaken notion of the labour which Dr. Kennedy had to go through. He thought £65 sufficient in the circumstances; the circumstances being arduous labour day and night, often not having his clothes off, having very little sleep, and dying of the disease at the end of all this labour. The Lord President thought £65 sufficient *in these circumstances*. We should like to see a judge do similar work and run similar risks for £65.

THE NURSING AT THE ST. PANCRAS WORKHOUSE.

THE Visiting Committee have presented a report in answer to the recommendation of the coroner and jury that there ought to be more attendance, and of a more efficient kind, in the insane and infirm wards of the workhouse. It appears that there are thirty-five male patients, chiefly harmless imbeciles, who are attended by a paid superintendent and seven pauper helpers, five of whom are employed by day and two to watch by night. It is the duty of the helpers to keep the wards clean, &c., and to assist the superintendent as he may direct. The night watchers

are employed to administer warm drinks to the patients, and assist them in and out of bed, and to call the superintendent to any patient requiring special attention. In the infirm wards there are 227 patients, who are attended by one female superintendent, one female paid nurse, and twenty-seven helpers (seven male and twenty female). The twenty female helpers are employed to watch in the day, and of the seven men three are employed by day and four by night, two of the latter being assigned to the bedridden ward. The helpers are not allowed to administer medicines or stimulants, or to dress wounds of any kind, these duties being performed by the paid superintendent and nurses. The duties of the superintendent and nurses in these departments are not so laborious and trying as those of the nurses in the infirmary, where the more acute cases of sickness are treated; and the subject of the employment of paid night nurses, to which the observations of the coroner appear to be directed, has been on more than one occasion under the consideration of the Board, and the necessity for their employment not established. The committee recommend that the foregoing facts be forwarded to the coroner in reply to his communication.

It appears to us that this explanation does not mend matters. Pauper helpers may do very well by day, but we consider it impossible to trust them at night. To leave 227 infirm and bedridden patients to four paupers, who if able-bodied probably have bad characters, and if, as is more probable, they are invalids themselves, are physically unfit for night duty, is to court the opportunity of public censure, such as that the coroner's jury have bestowed, and to deserve it also when it comes. We believe that two really good and responsible night nurses are indispensable in such a case, and the Poor-law Board should insist upon their appointment if the guardians do not think fit to do so.

THE NORFOLK AND NORWICH HOSPITAL.

THE custom now very generally prevails of giving a new year's entertainment of some kind or other to the patients of our hospitals, and we notice that the provincial hospitals have this year shown their kindness in this respect to the inmates within their walls. An account of what was done at the Norfolk and Norwich Hospital has reached us. The occasion, beyond being made a pleasurable one, was also utilised in a very sensible way as regards the presents made to the patients in connexion with the Christmas-tree. These consisted of every description of wearing apparel, more especially of that best suited at the present season for resisting cold. There were also endless fancy articles for the younger folk. No less than 126 in-patients and 60 out-patients, besides 68 nurses and their friends, and 22 others, received gifts of various kinds. Dr. Beverley was taken somewhat by surprise at the presentation to him of a handsome writing-case, and from the nurses of an elegant salver bearing the following inscription: "Presented to Dr. Beverley by the nurses of the Norfolk and Norwich Hospital, in grateful acknowledgment of his unvarying kindness. Jan. 1, 1869." We learn, on reliable authority, that the nursing in the hospital is very good. The circumstances which we have mentioned reflect the good sense and kindness of the authorities of the hospital. They clearly work well together.

SANITARY AFFAIRS AT KIDDERMINSTER.

THE state of things in this town, on which we commented a fortnight ago, seems to promise action of some sort before long. A deputation from the board of guardians has waited upon the corporation to urge the absolute need of such an improvement in the sanitary condition of the town as will reduce the death-rate to something like a moderate standard. It is alleged that whereas the mortality in the other parishes of the same union is only at the rate of 16 per 1000, in Kidderminster itself the rate during the past year has been 35 per 1000—a far higher proportion than is given by any of the large towns of the kingdom in the same period of time. The report of Dr. Roden to the guardians shows beyond question that the causes of unhealthiness are such as will inevitably provoke the intervention of the Home Secretary if the corporation do not bestir themselves forthwith. "I can safely say," Dr. Roden observes, "that scarcely a death from fever or zymotic disease has occurred in my medical district that I could not almost immediately trace to some cause capable of amendment or entire removal." The local press is most strongly on the side of sanitary reform. We shall hope to hear shortly that the corporation of Kidderminster has determined to enter vigorously upon a course of sanitary reform, and that bad water, bad drainage, and other objectionable characteristics now distinguishing the town are about to give place to conditions which alone may be relied upon for bringing the health of its inhabitants up to a proper standard.

"BAIRNSLA' FOAKS."

THERE exists in the north of England a town called Barnsley by the general public, and "Black Bairnsla'" by the aboriginal inhabitants. It is famous for the "Bairnsla' Foaks Olmenack" there annually published; and it has also a Board of Guardians. Until now, Bairnsla' babies have been vaccinated by two public vaccinators; but as the town does not contain a sufficient population to support two stations, there will, under the recent Act, for the future be only one, and one vaccinator loses his appointment. The gentleman thus displaced, and the one still holding office, are both parish doctors; and the Barnsley Solons (would that Aristides were a more frequent type of parochial excellence) have excogitated a notable scheme for restoring the equilibrium that the Vaccination Act has disturbed. They propose, worthy men, to augment by twelve yearly pounds the salary, as parish doctor, of the gentleman who loses his vaccination. They propose further—and here we are unable to interject a commendation—to arrive at these twelve pounds by removing them from the stipend of the gentleman who will for the future do all the public vaccination. The excessive impudence of the suggestion provokes a kind of admiration that almost casts into shade its injustice; but we trust there is some vestige of a conscience even at Gwydyr House, and that the necessary official sanction will be withheld from this tit-bit of parish economy. That the ex-vaccinator fully deserves his twelve pounds we have no manner of doubt, and, in all seriousness, we wish he may get them; but we are quite as much convinced that the actual vaccinator cannot be overpaid, and that there is no reason why he should be thus despoiled.

Besides this piece of ingenuity, the Board has distinguished itself in another manner. At its last meeting—

"The Clerk read a report by the medical officer, which, after directing special attention to the heating and ventilation, referred to the danger arising from the nurse in the hospital having to attend in the lying-in room. There was great danger when the nurse had fever patients to attend in this room, and he suggested the appointment of a distinct nurse for the latter.

"The Chairman said the nurse ought not to go out of the infirmary.

"The Master explained that there had been a great number of women in the lying-in room during the last fortnight, and, the nurse having to attend to these as well as to fever cases in the hospital, it was feared the fever might get into the lying-in room. The question of appointing an addi-

tional nurse had long been thought of, and the medical officer had now directed his attention to that matter.

"During some discussion which followed on the subject, it was stated that a pauper could not be entrusted with the care of the patients in the lying-in room. Some of the guardians thought it would soon be necessary to appoint another nurse, while it was at the same time suggested that a nurse might be procured in the town for a few days and discharged when she was no longer required. No resolution, however, was come to."

"No resolution was come to"! When fever has appeared in the lying-in room, and women have died and children been left motherless, the public will have no difficulty in coming to a resolution about the character of a neglect that cannot even claim the poor excuse of ignorance.

JAMAICA.

INFORMATION on some matters of interest has reached us from Jamaica. Dr. J. H. Somerville, the resident medical officer of the Public Hospital in Kingston, has been superannnated by the Government on the score of ill-health; and advertisements have been issued for two resident assistant medical officers, at a salary of £250 a year. The Government has also intimated their desire to appoint three medical officers in country districts in the island. Whence the five medical men required are to be obtained is a matter of uncertainty. They will scarcely be found in Jamaica. The number of the profession is decreasing each year, and but rarely does one arrive to recruit the ranks of those who disappear. The Medical Bill has not yet passed; and some anxiety is expressed on the subject, for the policy of the Government seems to be to give as little as possible to any of the learned professions. It is even rumoured that the Government contemplate allowing American medical men to practise in the island, if they cannot obtain British doctors on their own terms. This may be of the nature of a threat; if so, it is a very un-English mode of procedure. We believe that a Quarantine Bill has passed the Legislature.

ALTERATION OF MEDICAL OFFICERS' UNIFORM.

THOSE medical officers who fail to regard with any affection the uniform at present worn by them, will hear with pleasure that the use of their very ugly and unadorned black belts is to be discontinued. A medical officer will no longer resemble a railway guard in the character of his belt, for that worn by the former is to be ornamented with three lines of gold lace.

INCREASED MORTALITY FROM CHOLERA.

IN an article on "Cholera Hospitals" which appeared in a recent number of the *Indian Medical Gazette*, the increasing virulence of cholera of late years in India is dwelt upon. During the past forty years the relative mortality from cholera in India has been steadily increasing. Forty years ago, as we learn from Dr. Bryden's tables, the death-rate from cholera in the European army was 22·89; in 1867 it was 66·07. And this astonishing difference is not the result of a sudden rise, the cause of which is evident, but of a gradual and systematic ascent, the history of which requires investigation. With the native army in 1829 the death-rate was 19·56; in 1867 it was 50·82, arrived at by the same process. Nor have the prisoners in our gaols escaped. The cholera death-rate with them in 1867 was 42·88.

THE Pontypridd Board of Guardians have decided to pay a uniform fee of half-a-crown for each case of vaccination performed by their medical officers.

A VERY bad form of scarlatina has been prevalent for the last few weeks in Dublin.

DR. J. LITTLE has been appointed Registrar of the King and Queen's College of Physicians in Ireland, in the place of the late Dr. B. Guinness. The emoluments are about £100 a year.

AT the Quarterly Meeting of the Directors of the Naval Medical Compassionate Fund, held on the 12th inst., Sir E. Hilditch, Inspector-general, in the chair, the sum of £80 was distributed among the various claimants.

THE Newark Dispensary and Hospital have amalgamated as regards the management of the two institutions. This will, no doubt, conduce to greater economy. A meeting of the governors of the two charities was held on the 11th inst., to confirm the alteration.

THE Northumberland magistrates, in quarter sessions, have approved of a suggestion made by Mr. Brumel, the medical officer of the county gaol at Morpeth, that infirmary accommodation should be provided in the prison, the space now set apart for the sick being barely sufficient for two persons.

AT the third annual meeting of the governors and friends of the Hambrook Village Hospital, held on the 6th inst., the institution was reported to be in a very satisfactory condition. During the twelvemonth, fifty patients had been admitted to the six beds in the hospital. The total sum expended was £129 1s. 3½d., leaving a balance of £31 9s. 1d. in hand; therefore the little hospital is not only out of debt, but is actually investing money. The payments from patients increased from £18 in 1867 to £28 in 1868—a proof that the co-operative principle is in favour with the poor.

A MICROSCOPICAL SOCIETY has just been established at Liverpool, under the presidency of Dr. J. B. Nevins, who delivered an able address; and at the first meeting, which was held on the evening of Tuesday week last, Dr. Inman was elected vice-president, and Mr. W. M. Bywater (secretary of the Quekett Club) an honorary member. This society, which has already enrolled a very considerable number of members, promises to become a valuable addition to the scientific gatherings of Liverpool.

THE deaths of 2702 persons were recorded in the eight principal towns of Scotland during the month of December, being 180 in excess of the average. Zymotic diseases were the cause of 25 per cent. of the gross mortality; scarlatina was the most fatal of that class, destroying 263 lives, or 9·7 per cent. of the total deaths. This disease prevailed to a greater or less extent in each of the towns, but in Glasgow and Greenock especially, causing 13·2 per cent. of the deaths in the former, and 8·2 per cent. in the latter.

WOLVERHAMPTON has, we are glad to see, followed the example of Birmingham, and set apart one Sunday annually for making collections in all the places of worship in aid of the funds of the local medical charities. On Sunday last Wolverhampton held its first Hospital Sunday, and the returns up to the present show a sum of about £600 for the benefit of the South Staffordshire Hospital.

THE Bethnal Green Board of Guardians have resolved for the present to defer the consideration of an application for increased salary from Dr. Welch, of Hackney-road, their

medical officer for No. 5 district. Dr. Welch's work in 1866 was half as much again as in 1865, exclusive of cholera and diarrhœa cases. There were in 1866, 1871 cases, and 1213 in 1865. In the year ending Michaelmas, 1868, being the first year under the Metropolitan Poor Act, the cases attended were 2198. The reason for deferring the consideration of this most reasonable application was, in the language of the chairman, that the guardians "were about to make some alterations." The sooner they make an alteration in Dr. Welch's salary the better. £120 per annum for professional attendance on 2198 cases, including 10,917 mixtures and other medicines, is an absurdly small salary.

THE *South Australian Advertiser* very illogically lugs into an argument on the question of experts, the account of a case of apparent maltreatment in the Melbourne Hospital. We have no wish to apologise for any neglect or maltreatment in this hospital. But this has surely but very little to do with the ability of practitioners outside to make a post-mortem, which is the great question now agitating the medical minds of Melbourne, and upon which Dr. Youll has expressed himself in a way most offensive to the profession in Melbourne.

UPON the 18th ult. the President of the Royal College of Surgeons in Ireland gave his first official dinner for the season at his residence in Merrion-square. Covers were laid for twenty. Amongst the company were the Right Hon. the Lord Mayor, Sir Wm. Carroll, M.D.; the President of the College of Physicians, Dr. Churchill; the President of the Irish Medical Association, Mr. Macnamara; Drs. Stokes, Hudson, Collis, Wharton, Smyly, L'Estrange, Moore, &c.

DR. PATTERSON, who has distinguished himself by his attendance on the wounded at Malaga, is a retired deputy-inspector of the navy, and was recently staff-surgeon of the Dockyard at Deptford.

THE men of a fine regiment of Sikhs stationed at Fort William have been attacked by scurvy. More than fifty had been admitted into hospital within a few weeks. The *Indian Medical Gazette* is of opinion that the want of milk and butcher's meat (favourites with the Sikhs), excessive work, confined barracks, and prolonged residence in an uncongenial climate, have been the chief evil influences at work; and condemns the bomb-proof barrack in which the men live as a kind of Black Hole. The Bengal climate is regarded as unsuited for the residence of the Sikh. If the latter indeed must of necessity endure a climate which has its special dangers for him, at least let him have a chance of preserving his health, and do not bring to bear upon him a host of influences whose action a little forethought, and not much expenditure, would at once prevent.

THE care of a total of 422 inmates is no light matter. This is the number under the charge of the superintendent of the Norfolk County Asylum. The Commissioners in Lunacy at their last inspection reported favourably of the condition of the Asylum on the whole. They, however, notice that there are peculiarities in the building, with its many low-roofed dormitories, by which the proper amount of cubical space is not secured for each patient. They, therefore, urge the hastening on of the works for an additional building. The closet arrangements are defective, and the occurrence of typhoid fever was traced to bad drainage. This is condemned.

THE LONDON SCARLATINA EPIDEMIC OF 1868.

THE prevalence of scarlatina within the metropolitan limits during the latter half of the year just closed has been so often referred to in our columns, and has provoked so many inquiries, complaints, and suggestions in the pages of our medical and non-medical contemporaries, that we have thought it desirable, on the earliest occasion, to extract from the published Weekly Returns of the Registrar-General such statistics as are available for indicating (approximately, at any rate) the localities where the malady has been most fatal. We conceive that all who are concerned, whether professionally or otherwise, in the limitation, or better still in the prevention, of infectious diseases, will be glad to have pointed out to them the particular parts of the aggregated parishes or districts included under the name "London" in which one of the most destructive of those diseases has lately prevailed, and is prevailing now.

London presents a field singularly advantageous in which to study the statistics of fatal disease. The districts comprised within its limits are spread over an enormous area; its population of three and a quarter millions embraces all ranks, classes, and conditions of life; its medical wants are supplied to a degree probably unequalled in any other large community; its mortality statistics have been published with unvarying regularity and with considerable minuteness of detail every week for a quarter of a century, and the returns of causes of death, on which those statistics are based, are probably made with a greater degree of accuracy in diagnosis and record than can be looked for elsewhere. It is, of course, a regrettable circumstance that these otherwise valuable records do not give any account of the prevalence of disease which is not fatal. We can ascertain, for instance, how many deaths have occurred from scarlatina within a given time, but of the number of persons *attacked* nothing is known at Somerset House, and we are left entirely to conjecture as to the extent of the infection which has resulted in so many deaths from this one preventable disease.

The deaths from scarlatina in London during the 26 weeks ending June 27th amounted to 720; in the succeeding 13 weeks they numbered 738; and in the last 13 of the 52 weeks ending December 26th they rose to 1380, or an average pretty constantly sustained of 100 per week. Altogether, 2838 fatal cases were recorded, as compared with 1438 in 1867, 1892 in 1866, 2179 in 1865, 3244 in 1864, and 4955 in 1863,—the greatest mortality (rateably to the population) recorded from the malady in London since the statistics have become reliable. The deaths last year from all causes were in the proportion of 235 to every 10,000 of the estimated population, and scarlatina accounted for 9 out of that proportion.

The grouping of ages adopted in the weekly returns precludes any useful deductions in regard to the fatality of the disease at different ages. All that can be said is, that of the total 2838 deaths, 2755 occurred under 20 years of age, 74 between 20 and 40 years, and 9 only above 40. Taking, however, as a basis of calculation the general statistics of scarlatina for a series of years, which show that 64 per cent. of the deaths from that disease occur in the first five years of life, it may be estimated that at least 1800 of the 2838 fatal cases of last year were those of young children. We are glad to note that the deaths from every cause under 5 years of age are distinguished in the Weekly Return last published, and no doubt the distinction will be permanently observed.

That scarlatina has been unequally diffused over the metropolitan districts we had to some extent gathered

from an occasional perusal of the current returns; and it will be seen from the facts presently to be given that while some localities have been quite, and many others comparatively, free from fatal cases, others have suffered to an extent which ought to give rise to investigation. We may best exhibit this by taking first the groups into which the London districts are classed by the Registrar-General, and showing how they appear as regards their general and scarlatinal death-rates.

	Deaths to 100,000 living, from All causes.	Scarlatina.	Deaths from scarlatina to 1000 deaths from all causes.
LONDON ...	2352	91	39
West districts	2220	122	55
North „ ...	2260	83	36
Central „ ...	2472	107	45
East „ ...	2530	84	33
South „ ...	2262	75	33

The western and central districts have been most severely visited by scarlatina, both in proportion to their population and in proportion to the total deaths occurring in them. The ratio of scarlatinal to total mortality exceeded 39 per 1000 (which may be taken as the average for the whole metropolis) in 11 out of the 19 subdistricts forming the western group; in 8 out of the 20 northern subdistricts; in 14 out of the 27 central subdistricts; in 7 out of the 27 eastern subdistricts; and in 14 out of the 44 subdistricts south of the Thames. The names of these subdistricts, with their proportional fatality from scarlatina during the 52 weeks, are as follow:—

	Deaths from Scarlatina to 1000 deaths from all causes.
WESTERN GROUP:	
Chelsea, North East	112
*†Chelsea, North West	87
*Kensington Town...	80
†Chelsea, South	76
*Fulham	71
St. John (Westminster)	60
†Brompton	59
†St. Paul (Hammersmith)...	50
†Belgrave	47
Berwick-street	47
St. James's-square	46
NORTHERN GROUP:	
Kentish Town	84
Regent's-park	63
Stoke Newington	61
Cavendish-square	48
St. John (Marylebone)	47
*†Islington, West	44
†Gray's Inn-lane	43
Somers Town	43
CENTRAL GROUP:	
St. Mary-le-Strand...	102
*St. Andrew (Holborn)	77
†St. George (Holborn)	67
Long Acre	64
Amwell (Clerkenwell)	61
Goswell-street	60
Saffron-hill	55
*St. Giles, South	54
St. George (Bloomsbury)	53
*St. James (Clerkenwell)	50
St. Giles, North	49
West London, South	47
Pentonville	46
†St. Clement Danes...	41
EASTERN GROUP:	
*Ratcliffe	89
*Mile-end Old Town, East...	62
Mile-end Old Town, West...	59
Church (Bethnal-green)	55
St. Paul (St. George-in-East)	53
Holywell (Shoreditch)	51
Town (Bethnal-green)	40
SOUTHERN GROUP:	
*Norwood	72
Kennington, 2nd part	63
Lambeth Church, 1st part	56
Charlton ... / Plumstead, West / Plumstead, East	51
Kennington, 1st part	47
Peckham	43
†London-road	42
Kent-road	42
*St. Peter (Walworth)	41
†St. Saviour (Southwark)	41
*Lambeth Church, 2nd part	41
*Battersea	40

* Signifies that a workhouse is situated in the subdistrict.
† Indicates the presence of an hospital or lunatic asylum.

The lowest scarlatinal ratio in the Western group was 21, in St. John, Paddington; in the Northern group, South Hackney (19) and Stamford-hill (10); in the Central group, Finsbury (15), London City South-east (8), and London City North-east (7), while in London City South no fatal case occurred; in the Eastern group, Spitalfields (12), Artillery, Whitechapel (8), no death occurring in the St. John subdistrict of St. George-in-the-East; in the Southern group, the subdistricts of Dulwich and Eltham had no fatal case, while in Wandsworth, Greenwich, Woolwich Dockyard, and Streatham, the ratio of fatality was less than 15 per 1000.

The presence of large institutions in many of the subdistricts, is undoubtedly an element to be considered in making any comparison between different localities; but it will be observed that some of the most heavily-visited subdistricts contain no such institutions, while, on the other hand, their presence coexists in many cases with exceedingly light scarlatinal death-rates.

It would have been more satisfactory to us, had the means been fairly at our command, to have shown the ratio of scarlatinal mortality to the *population* of the several subdistricts than to the *total deaths* alone; but for such a computation we must look to the official statists, who have the requisite materials and working-power, if they think proper to use them.

The summary table which we gave at the outset will, however, show that, although the position of the subdistricts as compared one with another would probably vary somewhat from that indicated above if their respective populations were taken into account, yet that, as regards their grouping, those of the western and central divisions would still exhibit the highest scarlatinal death-rates. It will be observed, as a point of marked importance, that the death-rate from all causes in the western districts, proportionately to their population, is lower than in any of the other groups; and that while the scarlatinal mortality in the eastern group is comparatively low, their mortality from all causes is the highest of all. And it will be further evident, upon consideration of the localities in which scarlatina was most fatal last year in London, that its excessive prevalence cannot be identified with their general insanitary condition exclusively.

It has been our object, in this summary review of the statistics of scarlatina in London, to provoke such further investigation, both locally and centrally, as may lead to the adoption of well-considered measures for preventing the recurrence or limiting the prevalence of this most destructive malady in future.

A COMMITTEE of the Devonport Local Board has reported on the supply of water to the town, and we gather that at present it is subject to contamination by sewage to some considerable extent. The necessity for a continuous supply is very strongly urged.

THE CONTAGIOUS DISEASES ACT AT ALDERSHOT.

THE following is Dr. Barr's report on the working of the Contagious Diseases Act at Aldershot for the quarter ending December 31st, 1868:—

At the date of last report, September 30th, there were remaining under treatment in this hospital, 48; admitted since that date, 174.—Total, 222.

Discharged cured, 172; uncured, 0; to prison, 0; to friends, 2; to asylum, 3.

Remaining under treatment, December 31st, 1868, 50.

Average number of days required for cure, 21·4.

Character of disease: Gonorrhœa, uncomplicated, 121; syphilis, primary, uncomplicated, 9; gonorrhœa and primary syphilis combined, 27; gonorrhœa and secondary syphilis combined, 15; gonorrhœa and primary and secondary syphilis combined, 2.—Total, 174.

Of these, twelve have husbands living, and two are widows. One woman gave her age as fifty; the youngest was a mere child of fourteen.

Attendance at periodical examinations, 1147; found diseased, 209; detained in Aldershot Lock Hospital, 174; sent to London Lock Hospital, 35.

The number of attendances for periodical examination shows a considerable increase on the previous quarter. The majority of cases, Dr. Barr informs us, have been mild in character, and have yielded satisfactorily to treatment. A few severe cases have occurred, but these have been met with in fresh comers in the district.

Dr. Barr has appended to his Report to the War Office some valuable comments, in which he has considered especially the influences that hinder the efficient operation of the Act; and he suggests, amongst other things, periodical examination of the soldiers without exception; the erection of night lavatories for the use of the troops, under proper supervision; the extension of the Act to other localities, and this is a necessity emphasized by all who have seen much of its operation.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 12TH, 1869.

DR. E. MERYON, VICE-PRESIDENT, IN THE CHAIR.

REMARKS ON THE NATURAL HISTORY OF RHEUMATIC FEVER.

BY WILLIAM W. GULL, M.D., AND HENRY G. SUTTON, M.B.

THE authors are desirous of bringing under the notice of the profession a few more cases of rheumatic fever which have been treated by mint water, or, in other words, which have been allowed to run their natural course. They moreover desire to point out what appears to be the natural course of rheumatic fever with reference to the heart, and to show in what proportion of cases the heart became involved when rheumatic fever was treated by mint water. Lastly, to consider if there is any evidence to prove that the heart is more frequently involved when rheumatic fever is treated by mint water, or when treated by alkalies, by lemon-juice, or by blisters. This paper is based on twenty-five cases of rheumatic fever, twelve of which occurred in Guy's Hospital, most of them under the care of Dr. Gull, and thirteen occurred in the London Hospital, under the care of Dr. H. G. Sutton. The particulars of the twelve cases have been already recorded in the Guy's Hospital Reports, and the remaining thirteen cases are recorded in the present communication to the Society. Of these twenty-five cases, eighteen were females and seven were males. The average age of the patients was nineteen years. All the patients were suffering from their first attack of rheumatic fever, and the disease was well marked. The temperature of the body during the acute symptoms reached in some cases 104° and 103°; in other patients it was 101° and 102°. Taking an average of all these cases, the temperature was about 102° during the acute stage. The average duration of the acute symptoms, as estimated by the thermometer and general symptoms, was ten days. Taking all the cases that have been recorded by the authors, the average duration was 9·1 days. The total duration of the acute symptoms from their commencement, including the time the patients were ill before coming into the hospital, to their cessation, was on an average seventeen days. The authors next proceed to inquire if the duration of rheumatic fever is longer when treated on the expectant plan, or when treated by drugs; and they consider that no one plan of treatment has any great advantage as regards shortening the duration of the disease. Drs. Gull and Sutton agree with Dr. Barclay in considering that we are not yet in a position to say that alkalies exercise any influence in curtailing the duration of the disease. They are also of the same opinion respecting lemon-juice. With regard to Dr. Herbert Davies's blister treatment, they remark it relieves very much the pain and sufferings of the patients in some cases; but it does not appear to curtail the rheumatic process. And the authors remark, "Our cases appear to us to teach that the rheumatic process runs its course under the expectant treatment as favourably as under the treatment by drugs." Drs. Gull and Sutton next proceed to inquire what evidence there is to show that the drug treatment prevents the heart becoming diseased, and they give a detailed account of the state of the heart in their twenty-five cases. Every one of these twenty-five patients were suffering from their first attack of rheumatic fever, and twelve of the number had organic disease of the heart when admitted into the hospital; two had some, but not very well-marked, evidence of organic disease of the heart when admitted; and in eleven there was no heart disease on admission. No organic disease of the heart supervened while under treatment, and the heart was healthy when these eleven patients left the hospital. They remark the experience gained in these cases of rheumatic fever, which were allowed to run their natural course uninfluenced by drugs, tends to prove that, if patients are admitted into the hospital suffering from a first attack of rheumatic fever, and the heart is not diseased on admission, it will very rarely become organically diseased while patients are under treatment. The opinions of Drs. Garrod, Dickinson, Herbert Davies, Geo. Owen Rees, and Basham are then quoted to show that the heart did not, or very rarely did, become diseased when rheumatic fever was treated in the hospital by full doses of alkali, by blisters, by lemon-juice, or by nitrate of potash, and they observe: "It appears to us that there is not sufficient evidence to prove that any of the advocated systems of treatment have power to prevent the heart becoming diseased. In concluding that the treatment has prevented the heart becoming diseased, we have overlooked the fact that there might be no tendency at the time the patients were under treatment for the heart to become diseased, and our cases show that the good results which have been attributed to the influence of the remedies also occurred when no special remedies were used. Our cases, therefore, tend to teach that these good results were due, not to the drugs, but to the natural course of the disease." The authors then endeavour to show that when the heart becomes diseased in rheumatic fever, it does so at an early stage of the disease; and if it does not become diseased during the first week of the rheumatic fever, it rarely does so afterwards; and they give abstracts from twenty-two cases of rheumatic fever to demonstrate this.

Drs. Gull and Sutton's conclusions are as follows:—

That when the patient's heart was healthy on admission into the hospital, it was very rare for it to become organically diseased while the patients were under treatment by mint water—or, in other words, when the rheumatic fever was allowed to run its natural course.

That the evidence before the profession shows that the heart very rarely became diseased while patients were under treatment in the hospitals, and that this was the case when patients were treated by alkalies, lemon-juice, or by blisters to the joints.

That there is not sufficient evidence before the profession to prove that any of the advocated remedies have power to prevent the heart becoming diseased.

That in rheumatic fever the tendency is for the heart to become diseased during the first few days of the fever; and, should it escape the early days of the disease, there is each

day a lessening tendency to its implication. Hence the cases would appear to show that, if at the end of the first week of the rheumatic fever the heart is free from disease, then there is little or no tendency for it to become diseased during the later weeks.

That the reason why the heart did not become diseased when rheumatic fever was treated by alkalies, blisters, and by lemon-juice is to be attributed, not to the influence of the drugs, but to the natural course of the disease; for the patients did not come under treatment until the rheumatic fever had been going on some days, and until the period when the heart was most liable to become diseased had passed over.

The authors conclude by saying: "Hitherto the investigation into the therapeutics of the rheumatic process has been rendered all but valueless by the deficiency in preliminary data. At present, therefore, as regards treatment, our cases seem to show that we are limited to a careful regimen of the patient. Rest, mechanical and physiological—rest in the very outset of the disease. We ought not to wait until the rheumatic process has become well developed in the joints. To regulate the temperature. To moderate excessive skin function by sponging the surface of the body. To allay pain, by placing the patient in an easy position, and sometimes by opiates. To sustain the organic nerve power by light diet, and occasionally by small doses of alcohol. To procure rest by the simplest means, especially avoiding such movements of the body as may excite the circulation. In fine, to place the patient in a physiological state of mean rest, if it may be so termed, of the nervous, the circulatory, the muscular, and digestive systems. To do this fully will often tax all our energies, and require often more consideration than is requisite for prescribing any supposed appropriate drug treatment. We are, therefore, at present, advocates of the exactest treatment of the patient under acute rheumatism, though we may doubt the value of so-called specific drugs."

[As the discussion was adjourned, we defer our report of it until it is concluded.]

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 8TH, 1868.

SIR THOMAS WATSON, PRESIDENT, IN THE CHAIR.

THE following gentlemen were elected members of the Society:—Mr. J. Walker, Dr. Oldfield, Mr. J. Wyatt, Mr. A. Wolff.

The following gentlemen were elected as officers of the Society for the ensuing year:—President: Mr. Paget. Vice-presidents: Dr. Acland, Dr. Burrows, Dr. Gull, Sir William Jenner, Dr. Peacock, Dr. C. J. B. Williams, Sir William Fergusson, Mr. Prescott Gardner Hewett, Mr. Hilton, Prof. Humphry, Mr. Erichsen, Mr. Simon. Treasurer: Dr. E. Headlam Greenhow. Council: Dr. Anstie, Dr. Bristowe, Dr. Marcet, Dr. Murchison, Dr. Pavy, Dr. Quain, Dr. Rendle, Dr. Sibson, Dr. Southey, Dr. Weber, Mr. Alexander Bruce, Mr. Campbell De Morgan, Mr. Durham, Mr. Cooper Forster, Mr. Gascoyen, Mr. E. Hart, Mr. Chris. Heath, Mr. Hulke, Mr. Maunder, Mr. Thomas Smith. Honorary Secretaries: Dr. Burdon-Sanderson, Mr. Callender.

THE PRESIDENT'S ADDRESS.

This time twelvemonth, gentlemen, I had occasion to thank you for the signal honour you then conferred upon me, in making me your first President. I have now again to offer you my thanks; and I do so in all sincerity, not only for the compliment which you have just paid the other retiring officers and myself, but also, and especially, for the indulgence with which you have been good enough to accept the slender and imperfect service which alone I have been able to render you. I beg leave to add my own congratulations to those of the Council upon the progress and prosperity of our Society during the first year of its existence; upon its increasing number, upon its financial ease, and upon the creditable volume of "Transactions" which it has been able to put forth. I do not feel so certain that I can, with a clear conscience, and in terms as absolute, commend our meetings—that is to say, ourselves—for the strictest adherence to the professed objects of the Society; which are "the collection of reports of cases of interest, especially of such as bear upon undetermined questions in pathology and therapeutics." I have noticed, and others have noticed—and I take blame to myself for not having from this chair sufficiently discouraged—a tendency to wander beyond our prescribed limits, and to trespass upon the grounds of a kindred and friendly Society, which, if not damaged, might reasonably be offended, by such an invasion. But I am willing to look upon this as merely the unsteady walking of infancy; and to believe that, as we get older and stronger, we shall manage our steps better, and, respecting our neighbours' fences, keep strictly to our own well-marked path. The record of cases, closely observed and accurately detailed, calculated to throw light upon unsettled points in pathology—that is one of the proper and legitimate objects of the Clinical Society; and the investigation of the special action and efficacy of remedies is another, and, in my judgment, at present the more pressing and important of the two. The few words which I addressed to the Society on the evening of our first meeting have been, I fear, somewhat misapprehended. It seems to have been thought, in some quarters, that I had renounced my faith in physic—that I undervalued the resources and usefulness of our art. Such a notion is the very reverse of the truth. I am anxious to have the effects of remedies carefully ascertained and certified, just because I have so great faith in their real force. What I deprecate, what I would fain see altered, what it is one great end of this Society to do away with, is, the vagueness of aim, the uncertainty of result, the merely tentative nature of too many of our prescriptions. Far from thinking that our warfare with disease is a vain warfare, I am only desirous that our arms should have the precision of the modern rifle, instead of the wild flight of the old-fashioned smooth-bore. Probably I have even greater reliance than many physicians upon the virtues of drugs—of what used to be called simples—a word I like, because it helps continually to suggest to one's mind the golden rule, that their administration should be simple; that they should be mixed as little as possible with other substances which might confuse and vitiate the conclusions to be drawn from their actual operation. I am one of those who hold to the doctrine—always within its proper limitations, the limitations assigned by Bacon—the doctrine of final causes, so despised by modern philosophy. I believe that those subtle essences which human research and ingenuity have succeeded in deriving from various substances in Nature, and which, when applied to the human body, sometimes even in very minute quantities, have a potency so marvellous as to abolish pain, to compel sleep, to extinguish fevers, to stop for long, perhaps for ever, the recurrence of paroxysms of epilepsy which had continued to recur for years, were implanted in those substances by the Creator, among other uses it may be, for these very services to mankind; and that there lie concealed in other substances, and especially in the vegetable kingdom, many analogous healing powers, which it is a part of man's mission and privilege, and will be his great reward, to search after and to discover. The intelligent and scientific quest of such new remedies; the verification of the exact properties and effects of those we already possess, in order that the active and useful may be rightly applied, and the worthless discarded,—these, I repeat, ending as I began, are or should be, and I make no doubt will be, among the main purposes of this Society. The fruit of its institution, in that direction, will become more and more apparent when the inquiries into particular remedies, which have been entrusted to committees of our members, shall be ripe for report. In bidding you officially farewell, I must express the very great pleasure which your choice of my successor has given me. I heartily congratulate the Society upon its passing under the rule and headship of such a man as Mr. Paget.

Mr. MOORE read an account of a case of Severe Inflammation about the Hand and Forearm, which was treated with marked benefit by acupressure of the brachial artery.

Mr. DURHAM referred to the importance of endeavouring to lessen the arterial supply in similar cases by the position of the limb. He thought acupressure a severe measure for the treatment of these cases.

Mr. CARTER suggested the employment of digital pressure of the main artery of the limb.

Mr. T. SMITH referred to the amount of local irritation caused by the needle.

Mr. MAUNDER insisted upon the care which should be taken in the selection of cases, and stated that it was not so much a question of the method employed as of the principle involved in the arrest or cutting off of the supply of blood to the inflamed parts.

Mr. HEATH alluded to the desirability of trying the effect of drugs in local inflammations. He instanced the use of tartar emetic and belladonna, as showing their utility in certain cases.

Mr. MOORE replied that he was desirous of simply placing the case on record, as it seemed to him that, in this instance, the remedy had been efficacious.

Mr. THOMAS SMITH brought before the Society an interesting case of Rupture of the Intestine, in which the bowel was punctured before death to relieve its extreme distension. He referred to various cases in which a similar plan of treatment had been employed, and pointed out the comfort which the patient derived from the use of so simple a remedy.

Dr. FAGGE narrated a case which had been under Mr. Birkett's care at Guy's Hospital, in which great temporary relief had followed the operation.

Mr. HOLTHOUSE said this plan of treatment was advocated by Mr. Phillips. He commented on the desirability of puncturing the bowel with a needle in certain cases of hernia as facilitating reduction of the intestine.

Mr. DURHAM referred to Mr. Stocker's experience of the operation and the utility of the measure in the treatment of a case of strangulated hernia which had come under his notice.

Dr. STEWART pointed out the efficacy of belladonna injections in cases of over-distension of the bowel with flatus.

After some remarks from Mr. BRUCE,

Mr. T. SMITH expressed a doubt whether a needle would be found as useful an instrument as a fine trocar. He, of course, regarded the operation as one to be practised only after the failure of other remedies.

Correspondence.

"Audi alteram partem."

ANOTHER REBUFF.

To the Editor of THE LANCET.

SIR,—In THE LANCET of the 9th inst. I have seen, for the first time, a circular letter, signed "Harry Lobb," and in which it is asserted that the writer has *successfully* treated numerous patients, in conjunction with various physicians and surgeons, by means of electricity. My name has been introduced into this offensive circular without my knowledge or permission; and I, therefore, beg to inform the profession, that although some years since I occasionally recommended paralytic patients, wishing to try the effects of electricity, to Mr. Harry Lobb, M.R.C.S. and L.S.A., I have unfortunately no recollection of any case having derived any benefit from the course of treatment pursued by Mr. Lobb.

I am, Sir, your obedient servant,

Cavendish-square, Jan. 11th, 1869. GEORGE BURROWS, M.D.

THE PHARMACY ACT.

To the Editor of THE LANCET.

SIR,—Having filled the office of dispenser in a London hospital for fourteen years, and having also served an apprenticeship for four years to a chemist, I should feel greatly obliged if you will allow me to make public the great injustice of the new Pharmacy Act in regard to persons placed in my position. A chemist and druggist, or an assistant of three years' standing, can now be registered by passing a modified examination and the payment of one guinea; whilst the dispenser must pass a much stricter examination, and pay a much larger fee, before he can attain the same position. It is self-evident that a person who is in the habit of dispensing prescriptions by hundreds during the week, and who, in the case of students writing them, must be perfectly competent to detect any error that might occur, should be allowed the same privileges of registry as the chemist's assistant, whose three years behind the counter of a chemist's shop cannot possibly permit of his having attained the practical knowledge of dispensing which is obtained by years of experience in our public institutions.

Trusting, if you kindly insert this in your journal, it may be the means of bringing to notice the great injustice under which we labour,

I am, Sir, your obedient servant,

Jan. 4th, 1869. HOSPITAL DISPENSER.

POISONING BY TINCTURA FERRI PERCHLORIDI.

To the Editor of THE LANCET.

SIR,—It seems doubtful whether Mr. Warburton's case recorded in your last number is really a case of poisoning by tinctura ferri perchloridi—or, as he puts it, by the free hydrochloric acid in the tincture. The case reads like one of hysterical convulsions, with causation fully sufficient—a quarrel with her husband so violent that the woman takes refuge in self-destruction; and then, with the nervous system exhausted and uncontrollable (as it must be before the idea can be entertained), the poor creature believes she has accomplished the most awful deed. Can we wonder at the spasmodic fits described? Why should the iron or the hydrochloric acid be supposed to cause them? I presume that if there is a fair supply of mucus in the interior of the stomach the iron would effectually coagulate a layer of it, prevent absorption for the time being, and (as probably in this case) protect the essential structure from further action. The vomiting had the good effect of relieving both stomach and mind before much damage was done. The subsequent progress of the case shows the iron had done little mischief. Pereira, in his "Materia Medica" (if I remember rightly, alludes to a fatal case, in which death ensued some weeks after an ounce and a half of the tincture had been swallowed. There is no mention of convulsions, but the patient died, as might be expected, from the local effect of the poison.

I am, Sir, yours very truly,

Everton, Jan. 4th, 1869. EDGAR A. BROWNE.

UNQUALIFIED ASSISTANTS.

To the Editor of THE LANCET.

SIR,—Referring to an article in your last issue on the employment of unqualified assistants, will you permit me to state a few facts to show the tendencies of the profession in the employment of assistants?

During the year 1868, the principals requiring assistants through my agency numbered 956, of whom 516 wished to secure the services of *qualified* men; those seeking for the services of *unqualified* men numbered 440. By comparison with three previous years, it would appear that the demand for qualified assistants had increased, and that for unqualified ones had decreased. In the meantime, salaries have greatly advanced, the position of the medical assistant has been improved, and the demand for English qualified in-door assistants now largely exceeds the supply. To illustrate this fact, I may state that I have on my books 42 vacancies for qualified assistants, and 32 for unqualified. In general terms, the demand for unqualified assistants (except in large towns) is dying out.

The state of affairs in some colliery and mining districts is quite exceptional, and I could produce overwhelming evidence to show that the tendency is general to employ qualified men only. But then arises the question, Where are they to be got? As a rule, the Englishmen now entering the profession have either money or prospects, and do not enter upon the duties of assistantship, and the chief supply is from Ireland and Scotland. The former constitute by far the larger number, and are found to make good assistants when they have mastered the details of that apothecary's work which is performed by the majority of English practitioners.

I am, Sir, yours faithfully,

J. BAXTER LANGLEY, M.R.C.S., &c.

Lincoln's-inn-fields, Jan. 12th, 1869.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

PERHAPS of all the medico-political questions which agitate the Irish medical mind, that of superannuation for worn-out and disabled medical officers employed under the Poor Laws and Medical Charities Acts holds by far the most prominent position; whilst of all our numerous charities, the Royal Irish Medical Benevolent Association is that which most nearly concerns our profession on this side of the channel. This noble charity, unsupported by any other than voluntary gifts and subscriptions, silently and unostentatiously, from year to year, does an amount of good that must at times astonish even its most ardent votaries. Upon the present occasion, however, it is not my purpose to enter more particularly into either of these two subjects; my object is simply to show how within the past few days both these topics have been brought under the more immediate observation of our profession by conduct as noble as it was disinterested upon the part of one already well known to the scientific members of his profession as a sound surgeon, and more especially by his advanced physiological investigations—I mean Mr. Robert McDonnell.

To appreciate thoroughly all the merit really due to this gentleman, it will be necessary to inform your readers that some time ago he was surgeon to the Mountjoy convict prison, in which were confined a great number of political prisoners, who were engaged, or suspected of being engaged, in the Fenian movement, and who were incarcerated here under the powers granted the Government in consequence of the suspension of the Habeas Corpus Act. These *untried* men were subjected to prison regulations of even more stringent character than they would have been if convicted and sentenced—so rigorous, in fact, that health, and in some instances even reason itself, began to give way. And it then became Mr. McDonnell's duty to bring the matter before the proper authorities for their consideration, which he did in so energetic and persevering a manner that after a time he received a notification to the effect that arrangements had been made which resulted in the abolition of his office as visiting surgeon, and that, consequently, his services as such would no longer be required. Thereupon Mr. McDonnell applied for superannuation, which, at first, was declined upon the very grounds upon which it is refused to the medical officers employed under the Poor Laws and Medical Charities Acts—to wit, that his entire time had not been devoted to the discharge of his duties as visiting surgeon to the Mountjoy prison; whereupon Mr. McDonnell commenced a *justum bellum* both in and out of Parliament against the Government, which at last resulted in their awarding him a superannuation allowance, which, minus income-tax, amounts to £36 11s. 3d. per annum. By his untiring perseverance Mr. McDonnell has thus at last established so far the principle that, even though the entire time of the medical officer be not occupied in the discharge of his public duties, still he is entitled to some consideration, so far as superannuation is concerned, at the hands of the powers that be. And the precedent he has thus in his own case established may yet prove of signal service in advancing the Bill which the Council of the Irish College of Surgeons are seeking to have made law in the forthcoming session of Parliament. So that, had Mr. McDonnell done nothing further, in my opinion he would have been entitled to the warmest thanks of his professional brethren for the bold, manly, and successful stand he took upon a question of far more extensive and important application than to his own individual case. But Mr. McDonnell has not stopped here, for at the last meeting of the Royal Medical Benevolent Fund Society of Ireland a letter was read from him, enclosing a cheque for the entire amount of his superannuation grant, minus income-tax alone—£36 11s. 3d.,—and announcing it to be his intention to devote it in like manner for the future annually, as he receives it, to this most deserving charity. Noble conduct such as this carries with it its own commendation. No words of mine can add lustre to this high-minded, disinterested act; and I feel assured that all your readers will unite with me in heartily wishing many, and happy and prosperous, years to enable this worthy man still further to benefit the funds of the charity which he has selected as the recipient of his unsolicited bounty.

Dublin, Jan. 12th, 1869.

THE MARSHALL HALL MEMORIAL SCHOLARSHIP.

THE following gentlemen have been added to the General Committee. The first-named was accidentally omitted from the list which appeared last week:—

Dr. Alfred Hall (Brighton), Dr. Charlton (Newcastle-on-Tyne), Dr. Ross, Mr. Nunneley (Leeds), Dr. Harrington Tuke, Dr. Radclyffe Hall (Torquay), Dr. J. Birkbeck Nevins (Liverpool), Dr. Hyde Salter, F.R.S., Dr. P. Eade (Norwich), Dr. Ramsay, Dr. R. L. Johnson, Dr. Howell (Wandsworth), Dr. Norris (Stourbridge), Mr. Jessop (Leeds), Mr. Story (Carlisle), Dr. Heslop (Birmingham), Sir D. Gibb, Bart., Dr. Holland (Emsworth), Dr. Stevens, Mr. Chappell, Dr. T. Hayes Jackson (Darlington), Mr. Langston Parker (Birmingham).

Treasurers.—Dr. Russell Reynolds and Dr. Webster.

Honorary Secretaries.—London: Dr. Tilbury Fox, Sackville-street, Piccadilly. Edinburgh: T. Annandale, Esq., Charlotte-square. Dublin: Dr. Quinan. Provincial: Dr. Ellis, Newcastle-on-Tyne.

Communications may be made to either of the Honorary Secretaries.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at meetings of the Court of Examiners on the 12th and 13th inst.:—

R. A. Hewitt, W. J. Johnson, E. W. Alabone, F. D. Grayson, Charles Allwork, A. F. Treherry, and J. H. Ewart, of Guy's Hospital. H. D. Savary, William Renwick, T. H. Cooper, S. L. Herbert, S. T. Cass, and S. A. Julius, of King's College. G. B. Wadsworth, F. W. Joy, H. C. Cole, J. O. Betts, J. A. Kite, and E. J. Pugh, of University College. Lord Tattersall, Thomas Hill, C. J. Wharry, and E. S. Robinson, of St. Bartholomew's Hospital. W. A. Parker, Herbert Tatum, T. W. Hill, and L. E. Aitkens, of St. George's Hospital. J. R. Liston, Herbert Norton, M. A. Morris, and A. F. L. Dorin, of St. Mary's Hospital. Alfred Wright, W. M. Turner, and J. J. M'Andrew, of Charing-cross Hospital. C. F. Bellamy, W. W. Cooke, and T. H. Wagstaffe, of Middlesex Hospital. E. W. Pocock, of St. Thomas's Hospital. T. S. Hosford, of London Hospital. Lewis Thorpe, W. H. Meredith, and J. P. Gaunt, of Birmingham. Nathan Smedley and Robert Humphreys of Liverpool. C. W. Pratt, of Dublin and St. Mary's Hospital. E. F. Brodie, of Dublin.

Of the sixty candidates who were admitted to their *viva-voce* examination on Tuesday and Wednesday last, fourteen failed to satisfy the Court of Examiners, and were referred for three months' further anatomical study.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 7th of January:—

Harrison, Garland W. L., Park-place, Stoke Devonport.
Howell, John Alexander, Wansey-street, Walworth-road.
Robinson, Rawdon Briggs, New Barnet.
Sanders, Edwin, St. Bartholomew's Hospital.

The following gentlemen also on the same day passed their first examination:—

Robert Hodgens Lloyd, of Westminster Hospital. Daniel Geo. Rowlands, of Guy's Hospital.

PRINCE NAPOLEON'S HEALTH.—The French papers state that the Prince is very ill; that he is suffering from pleuro-pneumonia, and that his physicians find it very difficult to manage him.

THE Master of the City of London Workhouse reported a great influx of vagrants to the casual wards at the house last week. There had been ninety-two men in one night, whilst there was proper accommodation for fifty only, and many had had to sleep on the floor, covered with a rug. The stench was very bad, and the wardsman had been seized with fever, and had died.—*City Press.*

THE Great Eastern Railway Company has notified its intention of discontinuing the carriage of mineral oils, such as petroleum, on and after the 1st February.

THE public is indebted to Mr. Goschen for the issue of weekly returns of pauperism in the metropolis. Such information, if regularly kept up like the Registrar-General's Weekly Returns, will be of the utmost value to all who are interested in one of the greatest social questions of our time.

Medical Appointments.

ALDRIDGE, C., L.R.C.P.L., Clinical Clerk at the West Riding of Yorkshire Lunatic Asylum, Wakefield, has been promoted to Assistant Medical Officer.

ASHPORTH, G. M., M.D., has been appointed Medical Officer for the Clipsham District of the Stamford Union, Lincolnshire.

BOAST, Dr. B. R., of Wymondham, has been appointed Medical Officer for District No. 4 of the Forehoe Incorporation of the Poor, Norfolk, vice R. J. Tunaley, M.R.C.S.E., deceased.

BUCHANAN, G., M.D., has been appointed Physician to the Hospital for Sick Children, Great Ormond-street, vice Thomas Hillier, M.D., deceased.

CAMPBELL, A., L.F.P. & S. Glas., has been appointed Medical Officer and Public Vaccinator for the Parish of Lochbroom, vice A. R. M'Donald, M.D.

CLARKE, C., M.R.C.S.E., has been appointed Medical Officer to the Workhouse of the Forehoe Incorporation, vice R. J. Tunaley, M.R.C.S.E., deceased.

CLARKE, H. M., L.R.C.P.Ed., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Philipstown Dispensary District and the Geashill Branch of the Tullamore Union, King's County, and Medical Attendant to the Geashill and Philipstown Constabulary, vice J. S. Glover, M.D., deceased.

EDIS, A. W., M.D., M.R.C.S., has been appointed Assistant-Physician to the Hospital for Diseases of Women, Soho-square.

EVANS, S. H., M.R.C.S.F., has been appointed temporary Medical Officer for the Markeaton District of the Belper Union, Derbyshire, vice G. T. Hankins, M.R.C.S.E., resigned.

EVANS, T. W., M.R.C.S.E., L.S.A., has been appointed Senior House-Surgeon to the South Dispensary, Liverpool, vice W. Davies, L.R.C.P.Ed., resigned.

FERNANDEZ, T. F., M.D., has been appointed a Surgeon to the Dispensary, Ross, Herefordshire.

HARDY, Mr. H. N., Surgeon to the Royal South London Dispensary, has been appointed Surgeon to the St. Marylebone Provident Dispensary Duke-street, Portland-place.

HEATON, J. D., M.D., has been appointed Consulting Physician to the Leeds Hospital for Women and Children, vice R. Hobson, M.D., deceased.

HILDIGE, J. G., L.K.Q.C.P.I., has been appointed Physician and Hon. Secretary to the National Eye and Ear Hospital and General Dispensary, Cuffe-street, Dublin, vice B. G. G. Guinness, F.L.Q.C.P.I., deceased.

HUGHES, D. W., M.R.C.S.E., has been appointed Surgeon to the Bridewell, Wymondham, Norfolk, vice R. J. Tunaley, M.R.C.S.E., deceased.

LAWS, Mr. T. W., has been appointed Resident House-Surgeon to the South Dispensary, Liverpool, vice W. Davies, L.R.C.P.Ed., resigned.

LINDSAY, A., M.D., has been appointed a Physician to the Dispensary of the Royal Infirmary, Glasgow, vice J. D. M'Laren, M.D., appointed Fever Physician.

LITTLE, J., M.D., has been appointed Registrar of the King and Queen's College of Physicians, Ireland, vice B. G. G. Guinness, F.K.Q.C.P.I., deceased.

LORRAINE, W., M.D., has been appointed Medical Officer and Public Vaccinator for the Parish of Parton, Kircudbrightshire, vice J. D. Robertson, M.D., resigned.

MARKS, A. H., M.D., has been appointed Hon. Secretary of the Royal Medical Benevolent Fund Society of Ireland, vice B. G. G. Guinness, F.K.Q.C.P.I., deceased.

MARSDIN, F., F.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Thorverton District of the Tiverton Union, Devon, vice H. M. Body, M.R.C.S.E., resigned.

MASTERS, W. H., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for District A, and Medical Officer to the Workhouse, of the Thrapston Union, Northamptonshire, vice J. G. Leete, F.R.C.S.E., deceased.

MAYHEW, Mr. C., of King's College Hospital, has been appointed Clinical Clerk at the West Riding of Yorkshire Lunatic Asylum, Wakefield, vice Aldridge, promoted.

MORGAN, F. J., M.R.C.S.E., has been appointed Medical Officer for the Ryhall District of the Stamford Union, Lincolnshire.

RUSHER, J. G., M.R.C.S.E., has been reappointed Medical Officer for the Upton-Snodsbury District of the Pershore Union, Worcestershire.

SKAE, C. H., M.D., Assistant-Superintendent of the Fife and Kiniver District Lunatic Asylum, has been appointed Medical Superintendent of the Ayrshire District Lunatic Asylum.

TANNER, J., M.D., has been appointed Physician-Accoucheur to the Farringdon General Dispensary and Lying-in Charity, Bartlett's-buildings, Holborn, vice J. Palfrey, M.D., resigned.

TOWNSEND, M., M.R.C.S.E., has been appointed Resident Medical Officer at the Kensington Dispensary, vice L. Shone, M.R.C.S.E., deceased.

Births, Marriages, and Deaths.

BIRTHS.

CHAPLIN.—On the 15th ult., at Jerusalem, the wife of Thomas Chaplin, M.D., of a son.

DEW.—On the 2nd inst., at Park-row, Bristol, the wife of Dr. H. R. Dew, of a son.

EASBY.—On the 8th inst., at Darlington, Durham, the wife of Dr. Easby, of a son.

HILL.—On the 4th of November last, at Lambton, Newcastle, New South Wales, the wife of John James Hill, L.R.C.P.Ed., Surgeon, of a son.

STANLEY.—On the 9th inst., at Pembroke Dock, South Wales, the wife of Staff Surgeon St. John Stanley, 13th Depôt Battalion, of a daughter.

WRANGHAM.—On the 1st inst., at Wragby, Lincolnshire, the wife of J. D. Wrangham, M.D., of a son.

MARRIAGES.

ANDERSON—HOSACK.—On the 2nd ult., at Mont Peller, in the Parish of Portland, Jamaica, Izett W. Anderson, M.D., to Helena Jane, eldest daughter of the Honourable Wm. Hosack, Custos Rotulorum of the former parish, and late Member of the Executive Committee of the Government of the Island.—No Cards.

CRAWFORD—EDWARDS.—On the 7th inst., at Charlton Kings, Thomas Crawford, M.D., Surgeon-Major, Head of the Medical Branch Army Medical Department, to Mary Jane, daughter of Major-General C. A. Edwards, C.B.

DEATHS.

BRODRIBB.—On the 8th inst., Dr. W. P. Brodribb, of Bloomsbury-square, aged 68.

BURROUGH.—On the 26th ult., R. F. Burrough, M.R.C.S.E., J.P., of Dartmouth, aged 74.

BYERS.—On the 1st of Nov. last, at Sydney, New South Wales, Robt. Byers, M.D., M.R.C.S.E.

CAMPBELL.—On the 6th ult., at Meean Meer, India, G. M'Iver Campbell, M.B., Assistant-Surgeon 85th Regiment, aged 26.

COLBORNE.—On the 9th inst., at the residence of his father, Tachbrookstreet, Belgrave-road, Anthony Charles Colborne, M.D., of King's-road, Chelsea, late Surgeon on board the "Warrior Queen," aged 25.

COWAN.—On the 6th inst., at Upper Gray-street, Newington, Edinburgh, Dr. J. Cowan, R.N.

DANIELL.—On the 12th inst., at Kegworth, Alfred Horatio Daniell, M.R.C.S.E., L.S.A. aged 47.

KEMPLAY.—On the 1st inst., at Wakefield, B. Kemplay, L.S.A.L., formerly of Leeds, aged 63.

WALSH.—On the 3rd inst., James A. Walsh, L.A.H. Dub., of Westland-row, Dublin, aged 53.

Medical Diary of the Week.

Monday, Jan. 18.

ST. MARK'S HOSPITAL.—Operations, 1½ P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8 P.M. Drs. Thorowgood and Sedgwick, Messrs. Adams and R. Dunn: "Report on Mr. Hainworth's Specimens of Disease of the Pancreas and Mesenteric Glands, with Obstruction of the Gall and Pancreatic Ducts." — Mr. Hunt, "On the External Use of Chloric Ether."—Mr. V. de Méric: "How Syphilis begins and ends."

Tuesday, Jan. 19.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. Westmacott, "On Fine Art."

Wednesday, Jan. 20.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
OPHTHALMIC HOSPITAL, SOUTHWARK.—Operations, 2 P.M.

Thursday, Jan. 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Rupert Jones, "On Entozoa."
HARVEIAN SOCIETY OF LONDON.—8 P.M. Mr. Ernest Hart, "On the Ophthalmoscopic Evidence of Inherited Disease."

Friday, Jan. 22.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—8 P.M. Prof. Herschel, "On the last Eclipse of the Sun."
CLINICAL SOCIETY OF LONDON.—8½ P.M. Mr. T. Holmes, "On a Case of Lithotomy in which the Stone was not found. — Dr. H. Greenhow: "Chorea treated by Bromide of Potassium."—Dr. Hall Davis: "Chorea treated by Bromide of Potassium." — Mr. Hinton: "Removal of Solid Mass from Tympanum by Incision of the Membrane."

Saturday, Jan. 23.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL FREE HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Odling, "On Hydrogen and its Analogues."

Notes, Short Comments, and Answers to Correspondents.

THE REMOVAL OF INFECTIOUS CASES.

THE union medical officer at Dartmouth, having reported to his Board of Guardians that he had sent a man to the workhouse who had been landed from a ship in the harbour while suffering from infectious disease, has been informed in reply that he has acted illegally. To Mr. Newman's natural inquiry how he should act in similar cases, which were constantly occurring in Dartmouth, where no proper place was provided for their reception, the answer was, that the removal of a case of infectious disease, whether from a ship or elsewhere, was against the law, and that the guardians meant to rigidly enforce the provision. This may be all very well from the guardians' point of view. But what is the medical officer to do when he discovers that the law has been broken at the same moment only that his attention is called to the case—the ship from which the sufferer was landed, having meanwhile departed perhaps to the other side of the world? The truth is that the same law which prohibits the removal of infectious cases, also provides for their removal, under proper conditions, to a suitable place for their reception; and to parade one part of the law whilst ignoring the other is simply to admit that the part left out of sight has not been attended to. The legislation of 1866 and 1867 empowers local authorities (however they may be called) to provide all necessary hospital accommodation in their respective districts; and upon them, not upon the medical officers, ought to rest the responsibility attaching to the due observance of and provision for all cases of infectious disease either arising within their jurisdiction or imported thereinto.

Dublin.—Will our correspondent send full particulars of the case of Aneurism to which he has called our attention?

W. H. F. should be guided by his medical adviser.

THE NEW DUTIES OF WORKHOUSE MEDICAL OFFICERS.

To the Editor of THE LANCET.

SIR,—As your influential journal is well known to be an advocate for an improved condition of the Poor-law medical staff, I hope you will find room for the following remonstrance sent to the Poor-law Board. I subjoin the list of questions in the half-yearly statement required from the workhouse medical officers, together with my answers for the present report. Affairs must have come to a strange pass at the Board for them to require from medical officers of distant workhouses a periodical statement, which includes a report of the condition of the cooking apparatus and the number of towels used in the bed-rooms, and apparently for no other purpose than that of assisting to find employment for the swarm of clerks, who will have to make fair copies of these useless documents. The plethora of clerical complications at this highly official Board seems to require the application of THE LANCET. Pray, Mr. Editor, try and get for us a reduction of the piles of expensive and unnecessary report books, which in all probability are never examined, and rarely looked into, and the compilation of which sadly hampers us in our really useful duties. May I venture on this head to freely paraphrase a well-known stanza in Gray's "Elegy":—

Full many a list of complicated woes
In the dark closet of the clerk is stored;
Full many a book which chronic ills disclose
Unheeded lies upon the Poor-law board.

I remain, Sir, your faithful servant,
Ludlow, January 1st, 1869. HENRY MEYMOTT.

[COPY.]

To the Right Hon. the Poor-law Board.

Ludlow, January 1st, 1869.

MY LORDS AND GENTLEMEN,—In again making a statement of various matters relating to the Ludlow Union Workhouse, I do it under protest for the following reasons, which I respectfully submit to the consideration of your honourable Board:—

1. I look upon it as a work of supererogation, inasmuch as a book is provided at the workhouse, for the medical officer to report any deficiency in the aid afforded to him in his treatment of the sick poor.

2. I consider that the required statement falls more under the province of the Poor-law inspector than of the medical officer.

3. That periodical statements made direct to the Poor-law Board place the medical officer in an invidious position towards the Board of Guardians, on whom he is dependent both for the situation he holds and for the amount of his salary.

4. That in point of equity, after a contract is made for specified work, additional remuneration should be made for additional work imposed.

5. That as my salary for the workhouse is not more than sufficient for the medicines I supply and prepare; that as my other medical duties are onerous, anxious, responsible, closely watched, and virtually gratuitous; that as I have a very large amount of clerical duty to perform (the greater part of which is perfectly useless); and that as I am frequently called upon to perform duties which appertain to a relieving officer, I look upon it as an act of injustice to have invidious and unpaid duties imposed upon me, which more properly belong to the well-paid Poor-law inspector.

I take this opportunity of remarking that on the last occasion (July 30th, 1868) when I made the half-yearly statement, I requested that payment should be directed to be made for the same. To this request I have received no reply.

I have the honour to be, my Lords and Gentlemen,
Your obedient servant,
HENRY MEYMOTT,
Medical Officer of the Ludlow Union Workhouse.

[Here follow the questions and the replies.]

METEOROLOGY AND HEALTH OF BIRMINGHAM IN 1868.

MR. T. L. PLANT is clearly one of the most indefatigable of the now numerous observers of the relation of weather to health; for while the new year is hardly a week old, we receive from him a compendious review of the mortality statistics and meteorology of Birmingham for the past year, of which we regret that we are unable to give more than an abridgment. The rainfall for the year was 31·83 inches, which is 3 inches above the average; up to the end of May, 11 inches had fallen; during the next 60 days of extreme drought less than an inch fell; from the 5th August to the end of the year the deposition was 20 inches, of which 6·81 inches fell in December—more than three times as much as the observed average fall for that month during 16 years. Mr. Plant's remarks on the barometrical readings in connexion with the ventilation of mines are very interesting, and may be commended to the special attention of colliery proprietors and managers. The following comparison is given of the death-rate of Birmingham and other large towns in 1868:—

Annual Death-rate per 1000 *of Population.*

	Six months ending June 27.	Six months ending Dec. 26.	The Year.
London	22·6 ...	24·5 ...	23·6
Liverpool	27·9 ...	30·6 ...	29·3
Manchester	29·7 ...	34·6 ...	32·2
Birmingham	22·4 ...	25·3 ...	23·9
Leeds	23·1 ...	32·6 ...	27·9
Sheffield	24·9 ...	28·4 ...	26·6
Bristol	24·5 ...	21·1 ...	23·8
Newcastle-on-Tyne ...	23·8 ...	27·0 ...	25·4
Hull	22·5 ...	28·8 ...	25·7
Salford	27·0 ...	34·5 ...	30·8

Birmingham experienced the lowest death-rate of any of the towns during the first half of the year; but in the second half it occupied a less satisfactory position. So fatal was diarrhœa in the town last summer that the death-rate went up from 19·8 per 1000 at the end of June to 37·6, 39·2, 37·5, 35·7, and 35·0 for the five consecutive weeks ending August 22nd. A good water-supply is evidently one great desideratum for Birmingham, and another is a medical officer of health.

Observator and other Military Correspondents.—We have received several communications regarding the proposed reconstruction of the Army Medical Department, which shall receive the earliest attention practicable.

ON "EPILEPTIFORM" NEURALGIA.

To the Editor of THE LANCET.

SIR,—In an interesting paper on "Epileptiform" Neuralgia in your last impression, Dr. Anstie has done good service by repelling the notion, now generally prevailing, that this affection is to be considered incurable. To the remedies which Dr. Anstie has mentioned as chiefly valuable in the treatment of this terrible disease, may be added the operation of neurotomy, which is at present perhaps too little thought of. It is quite true that neurotomy has often failed to afford permanent or even temporary relief in such cases; yet Professor von Bruns, of Tubingen, has proved, by a very able analysis of a large number of such cases, that in many of them the result was unsuccessful merely because errors in diagnosis had been made, while in some of them the operation had not been efficiently performed; and that, after deducting these cases, there remains a number of others in which neurotomy has been followed by really satisfactory results.

As regards the continuous galvanic current, of which Dr. Anstie speaks in terms of praise, a few more years will no doubt show whether this remedy will not eventually prove more effectual than any other in the treatment of Fothergill's disease, as there is even now strong reason to believe. In one of the most interesting cases of this kind which is on record, the continuous current proved successful, after not only the most appropriate drugs, but also a variety of surgical operations had failed to afford relief. In this case, which has recently been published by Dr. Wiemer, Professor Billroth, of Vienna, performed successively the following operations within three years: Extraction of several teeth; neurotomy of part of the infraorbital nerve; removal of the painful portions of the alveolar process by means of raspatories; osteo-plastic resection of the upper jaw, and division of the second branch of the fifth nerve close to the foramen rotundum; excision of the buccinatorius nerve; resection of the posterior dental nerves and of the mental nerve; and finally, ligature of the left common carotid artery. Most of these operations relieved the patient for a time, after which the pain returned, with its usual severity, in different branches of the fifth. The patient then consulted Professor Niemeyer, of Tubingen. An idea of the severity of the pain at that time may be formed from the circumstance that the patient was then obliged to use daily eight grains of morphia, injected subcutaneously, for mitigating the violence of the paroxysms. Professor Niemeyer used the continuous galvanic current; the patient soon became able to dispense with the morphia, and within three months from the commencement of the treatment he was to all appearance perfectly well. Of course a relapse may occur after the galvanism, as it did after neurotomy; yet, as the remedy proved rapidly successful, it is to be presumed that if there should be a relapse, it would again produce the same effect. A case of a similar kind, where the continuous galvanic current proved successful after everything else had failed, occurred in my practice two years ago.

Your obedient servant,
JULIUS ALTHAUS, M.D.

Bryanston-street, Portman-square, Jan. 9th, 1869.

RECORDS OF DISEASE.

WE have received another of the excellent reports—the sixth for 1868,—prepared and published by Dr. Philipson, relative to the sickness and meteorology of Newcastle and Gateshead, the facts being contributed by twenty-two public practitioners of those towns. On a future occasion we may refer to some of the more striking features of these sickness statistics, with which, by the way, we hope to be regularly supplied.

Mr. Alfred Burn.—The letter has been destroyed.

POOR-LAW INQUIRIES.

ANOTHER instance of the utter absurdity of the mode in which Poor-law inquiries are conducted comes to our notice in the case of the Norwich Union. One of the medical officers is charged with some fault, and the postponement of an inquiry takes place because a material witness is not present. A colonel is the Poor-law inspector, and in adjourning the inquiry he informs the guardians that it will "not be conducted as a legal inquiry, as his business was only to collect information, which he should place before the Poor-law Board." A more inane and un-English proceeding cannot be imagined. The information collected, according to the wise plan preferred by Gwydyr House, of course is utterly useless.

THRIFT *versus* MEDICINE.

THE Newark Improvement Commissioners have held a special meeting to consider the question of electing a medical officer of health "with or without a salary;" and after some discussion it was determined that no such officer should be appointed, the main reason alleged for this decision being (as we gather from the *Newark Advertiser*) that as within the past five years only three or four occasions had arisen for medical advice, it was unnecessary to do more than have such advice when it was wanted and pay accordingly.

Dum Spiro Spero.—We can only advise our correspondent to obtain the opinion of some authority on the subject. We cannot undertake to prescribe.

A FINE OPENING!

THE Visiting Committee of Buckinghamshire magistrates have recommended the appointment of an assistant medical officer for the County Lunatic Asylum. For the information of any of our younger medical brethren who may be ambitious, we may say that the salary proposed is £80 a year, with board and apartments in the asylum—the accommodation, in fact, vacated by the matron, whose discharge has enabled the Committee "to effect a saving equal to the salary of the assistant medical officer." The horizon of medical prospects is certainly expanding.

A Surgeon's Assistant.—A certificate must be granted in each case of successful vaccination, and that can only be given by a qualified practitioner.

DAMPNESS OF SOIL AND PHTHISIS.

To the Editor of THE LANCET.

SIR,—As the object of my letter last week was to put before the public the true history of a discovery deemed important in the annals of medicine, in order that to every one what belongs may be fairly given, I regret if my meaning were so expressed as to admit any doubt as to the nature or grounds of my own claim.

To the question, Who originated the discovery in England that wet subsoil and fatal phthisis are intimately connected? the right answer is claimed to be, not Dr. Buchanan as hitherto stated, but myself, by means of facts derived from the experience of Salisbury, where deaths from phthisis were reduced to one-half, the soil, previously very wet, having been made very dry. I informed Dr. Buchanan of this great reduction, and explained my reasoning as to its cause being the drying of atmosphere by drainage of subsoil, for which purpose, besides mere sewerage works, *special works* had been done at Salisbury. This occurred at my house in 1865. Such is my claim; the grounds of it may be well seen in a concise history of the whole case, which I now ask permission to place in your columns.

Having caused sanitary works to be done in Salisbury, and it being known that great reduction of mortality had resulted, I was solicited to read a paper on the subject at the Bath meeting of the British Association in 1864. That paper (prepared upon short notice) was published in the *Statistical Journal* for 1864, and soon after as a pamphlet, called "Benefits of Sanitary Reform at Salisbury." In it occur repeated allusions to wet subsoil as a main evil (the foundations of many houses were in water), and phthisis is named as the most fatal disease in Salisbury, such phthisis being attributed to humidity and nastiness of atmosphere, the unfailing accompaniments of wet subsoil. A table is given, showing that since drainage for seven years, phthisis mortality had lessened to one-half, and this diminution is distinctly claimed as a demonstrated effect from an evident cause—i.e., drainage of subsoil, whereby "dry atmosphere," "very dry subsoil," even admitting of deep and dry cellars, had been produced. It should here be particularly noted that my paper was published in 1864, *three years before* Dr. Buchanan's Privy Council Report.

Often reflecting and speaking upon this remarkable phthisis reduction, I could never arrive at any conclusion but that, as the greatest change in Salisbury from sanitary works had been the drying of the subsoil, the excessive wetness thereof must have caused the previous excessive mortality from phthisis. This view of such special cause was always earnestly maintained by me, as medical friends can fully bear witness. I much wished for opportunities of further proving its accuracy by actual experience elsewhere, but could find none, for there no reports of other towns existed. When Dr. Buchanan, in 1865, called upon me in his tour of inspection from the Privy Council, on this very account, I welcomed him with peculiar pleasure, and specially directed his attention to the phthisis facts, then quite unknown to him, presented him with my pamphlet, fully explained my theory as to wet subsoil and phthisis, and asked him to allude to it in his report upon Salisbury; also to investigate the subject in other towns. About six months after, Dr. Buchanan wrote: "As in several other towns where good sanitary work has been done I do not find any such great reduction, perhaps it would not be safe to insist on the effect of your sanitary operations in reducing phthisis mortality." This quotation proves that I had acquainted Dr. Buchanan with the Salisbury phthisis facts, and assigned a cause for the mortality reduction. The letter itself also proves some other things. When Dr. Buchanan's Report appeared nearly two years afterwards, a table was annexed, showing reduction of phthisis in a number of towns, Salisbury heading the list, as the place where the reduction had been greatest, and such reduction was attributed in the Report to the identical cause suggested by me to Dr. Buchanan at Salisbury in 1865—namely, drying of subsoil by drainage works; for such drainage of subsoil was the very *prime* of the sanitary works done at Salisbury, as before amply shown by me. In the Privy Council Report, p. 49, occurs this passage: "As to the method of sewerage, it is to be noted that those towns have conspicuously improved which have had *special arrangements made for drying the subsoil, as at Salisbury.*"

Such is a brief history of the case—a statement of facts I hope made as plain as I know them to be true. They are offered as evidence that, by fair logical inferences from facts observed at Salisbury, I originated the discovery in England of the relation of wet subsoil to phthisis as cause and effect; that my views were communicated to Dr. Buchanan, who at first not deeming it "safe to insist upon" my explanation, ultimately did adopt it after more extended observation in many other towns, that investigation having been first suggested by me to him.

This is no mere question of *priority* of discovery, as it would have been had no communication been made by me to Dr. Buchanan; but I claim the discovery as being strictly mine, just as much as the large and valuable corroboration of it is Dr. Buchanan's. Had Dr. Buchanan not further investigated the subject, the Salisbury facts and my explanation, although for a time less known, would have not been less true.

I have no wish to take away one particle from what belongs to another; but history, to be true, must include my name as the original discoverer in England, from facts fairly reasoned upon, of the connexion between wet subsoil and phthisis.

I am, Sir, your obedient servant,

A. B. MIDDLETON, M.R.C.S. Eng.

The Close, Salisbury, January 12th, 1869.

To the Editor of THE LANCET.

SIR,—A letter in your last issue from Mr. A. B. Middleton, of Salisbury, which is in great measure answered by your editorial comments on it, appears to call for some observations from me also; and I have accordingly to request that you will be pleased to insert the accompanying communication which I have addressed to your correspondent. It would be not only very unjust, but very injurious to the service of the Government, that its inspectors should even appear to appropriate without acknowledgment any results obtained by the labour of local medical practitioners.

Your obedient servant,

Harley-street, January 12th, 1869. GEORGE BUCHANAN.

[COPY.]

MY DEAR MR. MIDDLETON,—Your letter in the last number of THE LANCET has troubled me not a little, as I thought I had given hearty recognition to the services you had rendered me in the preparation of my Report to the Privy Council upon Salisbury.

You are quite right in stating that on my visit to Salisbury in September, 1865, and for some months afterwards, I was ignorant of the fact that phthisis could be prevented by any sanitary work, commonly so called. It was just that point, and such points as that, which I was then beginning to investigate. It is also quite true that you had at that time ascertained that phthisis had become less fatal in Salisbury, and that you believed this reduction to be an effect of the sanitary labours in which you had taken so prominent a share. And further, I remember well that in 1865 you expressed this belief to me both in speaking and writing, and that I was then incredulous about it. So far I give a most ungrudging assent to the statements of your letter. It is true that in 1865 you held an opinion which I, having then visited six towns where reduction of phthisis had not always followed important sanitary works, did not share.

But I beg to say that your memory deceives you when you go on to state that you pointed out to me a connexion of cause and effect between the particular operation of lowering soil-water and the reduction of phthisis. It was quite at the end of 1865 or at the beginning of 1866, while I was examining the results of various sanitary operations upon the diseases of fourteen towns I had then visited, and while placing together in parallel columns various kinds of sanitary works and various kinds of disease, that I for the first time came to recognise an apparent connexion between reduction of phthisis and certain particular sanitary changes which had effected the drying of wells. Salisbury then ranged itself according to an apparent rule, and then, for the first time, I saw that your belief in the power of sanitary improvement to reduce phthisis had—not generally, but in a particular class of cases, of which your city was an instance—a tenable ground.

You will observe, however, that, even with my experience of 1865 (of fourteen towns), I did not venture to announce what you think you would have been justified in concluding from the experience of a single town. During 1866, I brought into evidence the facts about other towns; obtaining in the two years all the facts that England and Wales appeared capable of furnishing concerning the effects upon health resulting from the prolonged action of various sanitary measures. But, even then, I had not got, respecting the relation of wet soil to phthisis, the conviction which appears by some inspiration to have been conveyed to you upon the experience of your own single town. It was not until after yet another year, that in 1868, having examined the subject by a wholly different line of study, that I found such convergence of facts as enabled me to consider as proven that wetness of soil is one of the causative conditions of phthisis.

As you have appealed to our profession through THE LANCET, I shall ask from that journal that my answer may have equal publicity. But before I conclude, let me assure you that if you will show any evidence of your having, before 1866, suggested the influence of the special operation of soil-drying upon the special disease consumption (whether generally or for your own city only), I will promptly do my best to obtain for you all public credit for having discovered the connexion between the two things.

I am, my dear MR. Middleton, yours faithfully,

53, Harley-street, London, Jan. 12th, 1869. GEORGE BUCHANAN.

A. C. T.—1. Messrs. Harvey & Reynolds, Leeds; price 10s. 6d.—2. Enemata. 3. Our correspondent should consult any of the modern works on Skin Diseases.

THE POOR-LAW MEDICAL SERVICE.

WE learn that the Poor-law Medical Officers' Association are prepared for action, and that they intend to call their usual quarterly meeting some day towards the end of the month. We further understand that facts of a novel and important character will be brought forward on that occasion, showing the absolute necessity for a radical change in our Poor-law medical system.

Mr. Joseph Coleman.—We cannot undertake to prescribe, or to offer any medical opinion on cases sent to us with that view. Our correspondent had better apply to his ordinary medical attendant.

SIR JAMES SIMPSON ON HOSPITAL SALUBRITY.

THE question raised by Sir James Simpson as to the comparative merits of permanent and of temporary hospital buildings is again attracting attention. We shall discuss it in our next number, as the pressure on our space will not allow of our doing justice to it this week.

A Dispenser.—The qualifications for the Army Medical Department are as follow: The age must be between 21 and 26, and no name can be accepted without the applicant producing evidence of having a good moral character, of having passed the examination of the Pharmaceutical Society, and of having been duly registered.

Mr. John Kent.—The case is not sufficiently stated in detail to be of any interest.

Indignans writes from Blackburn to corroborate the statements which we have made in regard to medical practice by unqualified persons.

Greyheaded.—We can scarcely undertake to answer the exact question. If the compound contains lead it had better be avoided. There is no analysis at present to show what are its exact ingredients.

Beta.—A person possessing only the M.D. Edin. University degree and the diploma of the College of Surgeons of London is ineligible for a Poor-law appointment.

REFORM IN THE NURSERY.

To the Editor of THE LANCET.

SIR,—I fear it is an unprecedented step in a lady to address THE LANCET, and nothing but the feeling that a medical journal is the only appropriate medium for what I wish to say could induce me to deviate from the ordinary course.

What will be the ultimate result on the physical character of our population of a state of matters which involves not only the death of multitudes, but the enfeebled and degenerated life of many more, who must perpetuate a deterioration which will increase as it goes on? As regards the poor and wretched, medical men can perhaps do little beyond encouraging such expedients and palliatives as are not in their nature opposed to the gradual amelioration of our social miseries. But it seems to me that medical opinion and effort might effect much in a higher class of society by arresting the growth of a custom which is becoming more and more prevalent, the mischiefs of which are disguised to a large extent by the means within each of the better classes, but which are not the less real. I refer to the fact that it is now-a-days quite the exception if a woman of the upper middle classes nurses her own children. Where there is carelessness and a tendency to self-indulgence, leading to the exaggeration of difficulties and the desire to evade the duty, it then becomes the business of the doctor to urge every consideration, moral and physical, which can avail to create a different state of feeling. I fear very often this is not the view taken of the matter. On the contrary, young mothers are constantly told that it is really of little consequence whether or not they nurse their children; that they will thrive equally well on "the bottle;" and some men of no mean standing have even been known to represent to mothers anxious to nurse the amount of sacrifice it would entail, persuading to the relinquishment of a duty which should be encouraged in every possible way.

Some admirable remarks in a late number of THE LANCET with reference to the alleged necessity for upper class nurses encourage the hope that your powerful influence may be brought to bear in awakening attention to the evil adverted to in this letter. The whole subject of nursery management and early training is of the highest importance; and with all zeal for higher educational advantages and wider spheres of action and effort for our sex, we must see that we do not leave out of sight, or subordinate to more exciting pursuits, those primary duties which Nature herself teaches, and which, in truth, afford unequalled opportunities for the exercise of high intelligence, wholesome self-discipline, and elevated effort. The woman, of whatever rank, who labours with her whole soul to make her children all they are capable of both in body and mind, prepares a harvest of results for the future infinitely greater and more worthy than anything she could have effected by *mis*-directing her energies into any other channel whatever.

I remain, Sir, yours truly,

January, 1869. A MOTHER.

An Intending Candidate.—We are informed that the usual competitive examination for assistant-surgeons for her Majesty's army will not be held at Chelsea, as the authorities already possess supernumerary officers of that rank.

NEATH BOARD OF GUARDIANS.

THE case between Dr. Russell and Dr. Ryding has been disposed of in a somewhat vague sort of way by the Board. It seems to us that it is a very hard case for Dr. Russell to have been deprived of the case and of the fee. Poor-law work is poor enough without being shorn of extras. Dr. Russell was the officer of the district; he was specially sent for, and made ready to go when sent for. But even apart from such special circumstances as these, there is an understanding that extra parish cases are the perquisites of the medical officer of the district. Perhaps Dr. Russell was wrong in not trying some private means of settling this dispute; but his complaint had reference to an act of the Board.

Diogenes.—The fact that a drug has been quacked is surely no reason for its being neglected by the regular practitioner.

THE ACOUOXYLON.

To the Editor of THE LANCET.

SIR,—In your journal of the 26th December a letter appears from Messrs. Coxeter and Son, describing a stethoscope which they have lately made under the direction of Dr. B. W. Foster, of Birmingham, and which was exhibited at the Oxford meeting of the British Medical Association. It is described as being made of solid cane, possessing the advantages of lightness, great conducting power, &c. We beg to state that for twenty years this stethoscope has been made by us and others in this city. The merit of the suggestion is due to Sir Dominic Corrigan, and the instrument is known here as "Corrigan's Stethoscope." The only difference between it and that described by Messrs. Coxeter is that in Sir D. Corrigan's instrument the end applied to the chest is not made oval.

We are, Sir, your obedient servants,

Grafton-street, Dublin, January 1st, 1869. FANNIN AND CO.

ANATOMICAL MUSEUMS.

WE are very glad to perceive that the attention of our contemporaries has been directed to the scandalous and demoralising nature of these institutions. It is only by persistent warfare with them on the part of the press that we can expect Parliament to be induced to take up the subject, and deal with it properly. The *Daily News* urges that the contents of these places ought to be destroyed, and their owners punished. In a very ably written leader it refers to what we said long ago and have so often repeated, and adds:—

"There is not the slightest scientific justification, for instance, for the brutal waxwork to be found not far from Mr. Brook's exhibition. It has been proved that the accredited showman is a quack of the most dangerous and most roguish kind; that his trade not alone consists in the vile displays with which he stuffs a whole gallery, but in the terrifying of a sick and nervous people into his hands, where they are tortured for life by dread of exposure, or by the ignorant and destructive bungling of an impostor. And yet the thing is allowed to go on. The quack and his fellows advertise and flourish, and the museum continues open to testify to the slackness of our law in such cases, and to the intermittent nature of the heat for morality which is at this moment influencing the police."

Mr. D. Timmins.—We cannot understand why our correspondent should feel so acutely remarks which he knows to be entirely inapplicable to him The rest of Mr. Timmins's letter is very satisfactory.

Dr. W. Easby.—We believe that to be the case.

E.—The provisions of the Medical Act are sufficient to meet the case mentioned by our correspondent.

AN APPLICATION FOR INCREASED SALARY.

THE following letter has been addressed to the Bethnal Green Board of Guardians by Dr. Welch, one of the district medical officers:—

377, Hackney-road, N.E., December 23rd, 1868.

GENTLEMEN,—I respectfully beg leave to renew my application for an increase of salary, and also to submit to your Board the accompanying statement of the duties of my district during the year ending Michaelmas, 1868, being the first under the Metropolitan Poor Act, 1867; and I further beg to draw your attention to the subjoined extract from the reports of the medical officer of health, showing the increase of pauper sickness in each out-door district in one year.

I remain, Gentlemen, yours, &c.,

(Signed) CHARLES WELCH,
Medical Officer, No. 5 District.

To the Board of Guardians, St. Matthew, Bethnal Green.

St. Matthew, Bethnal Green, Middlesex. No. 5 Medical District.

Medical officer's statement of cases and duties performed during the year ending Michaelmas, 1868, being the first year under the Metropolitan Poor Act, 1867. Salary £120; no extras, as per order of Poor-law Board, dated August 24th, 1864.

Number of cases during year	2,198
Number of attendances during year	17,906
Number of supplies of medicines &c. during year. Except in urgent cases, each supply of medicine was sufficient for four or five days, or sometimes a week	13,762
Number of midwifery cases, including difficult and instrumental cases, during year	64
Number of accidents during year, including fractures, wounds, contusions, concussion of brain, burns and scalds, dog bites, poison, foreign bodies in throat, &c. &c.	71
Number of operations and dressing during year, including reducing hernia, paracentesis, opening abscesses, reducing fractures, extracting teeth, applying bandages, catheterism, administering enemata, passing probang, &c. &c.	121
Number of cases cured, relieved, and under treatment	2,128
Number of cases died	70

Details of supplies of medicines, &c.

Mixtures, 10,917; lotions and injections, 670; gargles, 306; doses of pills, 548; draughts, 97; collyria, 82; powders, 707; suppositories, 2; topical applications, 203; plasters, 14; blisters, 15; ointments, 98; embrocation, 1; leeches, 8; splints, 3; pads, 3; cotton wool, 3; bandages (rollers), 28.—Total, 13,762.

Abstract from two last reports of Dr. Sarvis, medical officer of health for Bethnal Green, showing the increase of pauper sickness attended by the out-door medical staff, and exclusive of cholera and diarrhœa cases in 1866, which were provided with medicines and specially attended by twelve or more medical officers at stations provided by the vestry all over the parish.

District.	1865.	Cases.	1868.	Cases.
No. 1.	Mr. Massingham	824	Mr. Massingham ...	1250
,, 2.	Mr. Defries ...	835	Mr. Defries	1076
,, 3.	Dr. Burgess ...	939	Dr. Burgess	1134
,, 4.	Mr. Haycock ...	1447	Dr. Richards	2094
,, 5.	Dr. Welch ...	1213	Dr. Welch	1871
,, 6.	Dr. Lyel	581	Dr. Lyel	660
,, 7.	Dr. Brotherton .	882	Dr. Bratherton	1277
		6721		9441

Being an increase of pauper sickness for the out-door medical districts in one year of nearly half as much again as the total cases of the previous year.

(Signed) CHARLES WELCH,
Medical Officer, No. 5 District.

The Chairman observed that as the Board was about to make an alteration in the districts and salaries of their medical officers, the consideration of this application ought, in his opinion, to be adjourned.

This opinion met with general approval, and the matter was deferred accordingly.

Phos.—The practice alluded to in the letter of our correspondent is of the most objectionable character, and unprofessional in every sense of the word.

R. H. L.—The essays must be written in French.

A SENSIBLE MAYOR.

THE Mayor of Carnarvon, in an address which he delivered at a meeting of the Literary Society of that place, made some excellent remarks to his audience on the good results of sanitary improvements. He observed that by the introduction of pure water and good drainage they had reduced their mortality in Carnarvon to nearly one-half what it was, so that in round numbers the chances to the residents of life were nearly twice as good as they had been; and he fairly added that had proper sanitary measures been taken before, numbers of those in the churchyard might have been present at the assembly over which he presided.

Filter.—The Carbon Filter.

L.R.C.P. Lond., &c., (Oaklands, Breconshire,) says:—"I am in general practice here, and my prescriptions are made up at a chemist's. Now, supposing I order pulv. Doveri, gr. v., nocte sumend., or ac. hydrocyan. dil., m. iij., in a mixture, must the chemist, according to the Pharmacy Act, label each 'Poison'? I had occasion to give ac. hydrocyan. dil., m. iij., in a bismuth mixture, which was labeled 'Poison,' and of course at my next visit I found that it had not been taken in consequence." — The chemist, being registered, is only required in cases such as those named to label the medicines with his name and address, and to enter the prescriptions, together with the names of the patients, in a book to be kept for that purpose. This is the construction that has been put upon the 17th section of the Act by the highest authorities.

Dr. White.—There is no remedy. Our correspondent will probably agree with us that such baits as those held out in the advertisement should be avoided.

A CASE OF MATERNAL IMPRESSION.

To the Editor of THE LANCET.

SIR,—In THE LANCET of the 7th November, Mr. E. Childs, of New Malden, records a very interesting case of maternal impression, in which the head of the child somewhat resembled that of a rabbit. The following parallel case, in which the child had a decided resemblance to the form of a *rat*, is very peculiar and interesting.

At three o'clock on the morning of the 4th of June I was summoned to a lady, my partner's patient, he being unwell. On examination, I found the os dilated to about the size of a crown-piece, the membranes not ruptured, and the pains frequent and severe. I could not make out what part was presenting, but was certain it was not the head. I waited for a little time, and when the os became more dilated, ruptured the membranes, when I found that it was a transverse presentation. I, therefore, immediately passed my hand into the uterus, got hold of both the feet without any force or difficulty, and turned the child. The next pain completed the birth. The child was dead, and evidently had been so for some days. My patient at once inquired "if it were dead," and when I told her it was, she asked "if it were all right." I, of course, only told her to keep quiet, and wrapped the child in the flannel; but she again persisted "Has it got any mark like a rat?" I said I would see. When the mother was made comfortable, I took the child into another room, and examined it. It was a most horrible monster. The body and limbs were natural; but there was no neck, the head being placed immediately between the shoulders, with the face upwards. The resemblance to a rat was most striking. The maxillæ were prolonged, and terminated in an exact snout, the nose, mouth, and tongue being precisely like those organs in the rat. There was no rotundity of the cheeks, or prominence of forehead; but a prolonged cone-shaped snout, looking upwards, attached directly above the sternum.

On questioning the mother, she informed me that at the time of the conception, and for about three months afterwards, she lived in a house infested with rats. To use her own language, "Wherever she turned she saw a rat, and always said the child would be marked." Unfortunately I was not permitted to retain the monster, nor indeed to see it again after my first examination.

The patient recovered without a bad symptom. She had previously been the mother of several fine healthy children.

I remain, Sir, yours truly,
Queen's-road, Dalston, January, 1869. F. H. DALY, M.D.

Medicus.—Supposing our correspondent's estimate of his patient's means to be right, the charge of 5*s.* per visit is intrinsically quite reasonable. Something certainly depends upon the custom of the neighbourhood. Our correspondent's patient alleges that gentlemen "of very high standing" charge only 3*s.* 6*d.* per visit. If this be true of patients with £1000 a year, and houses of £85 rent, all we can say is that it should not be true. But even good patients sometimes require to be "educated" as to the value of professional services.

An Anxious and Unhappy Wife should consult some physician who devotes himself to the treatment of mental affections. Much may be done by judicious control.

THE FUNCTION OF THE UVULA.

To the Editor of THE LANCET.

SIR,—When recommending to patients the shortening of an elongated uvula, I am repeatedly met, in fear or objection, by the narration of various disabilities which, so they have heard, have followed that operation. Can any of your readers inform me what are the acknowledged physiological uses of that organ, and what unpleasant results have been known to follow its removal, either wholly or partially?—Yours obediently,

Hastings, January 11th, 1869. C. B. GARRETT, M.D.

Omega.—Ireland is excluded from the benefits conferred by the Act. The Apothecaries' Company of Ireland holds jurisdiction over its own country.

Mr. Walter F. H. Pippetts.—1. No.

A CORRESPONDENT in the *Brighton Times*, in a letter dated January 6th again calls attention to the pestiferous smell that comes from the "main drain, which empties itself opposite to the entrance to the Chain Pier."

WE are requested to state that Fred. Simms, M.B., M.R.C.P., of Wimpole-street, is not the gentleman whose appointment to the Hospital for Diseases of the Skin was announced in THE LANCET of November 28th.

AT the moment of going to press we received a communication, signed by *Mr. Charles L. Ryan*, from the Exchequer and Audit department of Somerset House, relative to the comments which we made last week on the "Strand Dead-house." The letter arrived too late for insertion in the present number.

COMMUNICATIONS, LETTERS, &c., have been received from — Mr. Paget; Baron Liebig; Dr. Theodore Williams; Dr. Buchanan; Dr. Habershon; Dr. Tanner; Dr. Sedgwick; Dr. Wilson Fox; Dr. Peacock; Dr. Burrows; Mr. Hamilton, Liverpool; Dr. Hicks; Mr. Gordon; Mr. W. Hall, Tenby; Dr. Denny, Stoke Newington; Mr. Coleman; Mr. Collins; Mr. Jackson; Mr. Poole; Dr. Cooper; Mr. Hill; Mr. Brook; Dr. Wadd; Dr. Peterson; Dr. Cooke, Baltinglass; Mr. Shaw; Mr. Green; Dr. Simms; Dr. Campbell, Machynlleth; Dr. Popplewell; Dr. Moore, King's Norton; Mr. R. Taylor, Wigton; Dr. Starkey; Mr. Stone; Dr. Alexander, Halifax; Mr. Cooper; Mr. Timmins, Dudley; Dr. Knapp, Sackville, Canada; Dr. Podmore, Liverpool; Dr. St. John Coleman, Wavelands; Mr. Middleton, Salisbury; Mr. Daniell, Derry; Dr. Bulcock, Twiston; Dr. Boggs, Paris; Mr. Black; Dr. Balbirnie, Sheffield; Mr. Carmichael; Messrs. Gillon and Co., Leith; Mr. Innskipp, Exeter; Mr. Shaw; Dr. Wrangham, Wragby; Mr. Barham, Clavering; Dr. Lightbourne; Dr. Latham, Cambridge; Dr. Buckingham, Boston, U.S.; Messrs. Calvert and Co., Manchester; Mr. White; Dr. Edis; Dr. Philipson; Mr. Cheshire; Dr. Welch; Mr. Gliddon; Dr. Anderson; Mr. Kent; Mr. Asten; Mr. Langley; Mr. Moore; Mr. Baynes; Dr. Day, Billericay; Mr. Bowen; Mr. Minton, Swansea; Dr. Althaus; Dr. Waters, Liverpool; Mr. Galton; Dr. Noden, Kidderminster; Dr. Russell, Neath; Mr. Colville; Dr. Woodward; Dr. O'Connor; Mr. T. W. Evans, Liverpool; Dr. King, Castleford; Dr. Cameron, Kirton; Mr. Thompson, Bristol; Mr. Moses, Burton-on-Trent; Dr. Bulmer, Hackney; Mr. Wall; Dr. Wade; Dr. Bruce; Dr. Morrish; Dr. Chaplin, Lewes; Mr. Hughes; Mr. Thomas; Mr. Hounsfield; Mr. Greenway; Mr. Pearce, Dulwich; Dr. Horner, Plymouth; Mr. Jones, Tremadoc; Dr. Sutton, Smethwick; Mr. Lubbock; Mr. Berry; Mr. Lee; Dr. Waters, Droitwich; Mr. H. Case; Mr. Clifton, Wolverhampton; Dr. Barnes, Thaxted; Mr. Owen; Mr. Morgan, Dublin; Mr. Goodfric; Dr. Cronin, Queenstown; Mr. Jack; Messrs. Southall & Co., Birmingham; Dr. Hagan; Captain Sexton, Cork; Mr. Levick, Sheffield; Mr. Deane; Dr. Macrae, Middlesborough; Mr. Ford; Dr. Wallace, Liverpool; Dr. Mariey, Bromyard; Mr. D. Murray; Mr. Pippell; Dr. Murphy; Dr. Bedolfe, Dulwich; Messrs. Wild; Mr. Curreen; Mr. Stanley, Pembroke; Mr. Gomm; Mr. Wintle; Dr. Gibb, Helensburgh; Dr. Garrett, Hastings; Dr. Rose, Kidderminster; Mr. Lloyd; Mr. Easby; Mr. Clough; Mr. Cooke, Stoke Newington; Royal Institution; A Dispenser; Omega; Observator; Naval Medical Fund; Meredith; H. L.; An Anxious Wife; Z.; J. M. D.; Diogenes; Phos; Junius; X. B.; Indignans; E.; Veritas; R. H. L.; Beta; Once Greyhaired; Enquirer; R. B.; M.D.; Medicus; G. C.; A. B.; L.R.C.P. Lond; T. J.; X. Y. Z.; &c. &c.

Lincolnshire Chronicle, Newark Advertiser, Brighton Gazette, Leeds Mercury, Scotsman, Cardiff Guardian, Parochial Critic, Bethnal Green Times, Atlas Norwich Mercury, Japan Times, East London Observer, Bucks Herald, Eastern Post, Jamaica Guardian, Worcester Herald, Brecon County Times, South Australian Advertiser, Liverpool Albion, St. Pancras Reporter, Delhi Gazette, Brighton Times, Birmingham Daily Post, Norfolk Chronicle, Revue des Cours Scientifiques, Monthly Microscopical Journal, Carnarvon Herald, Indian Medical Gazette, Torquay Directory, American Journal of Obstetrics, Quarterly Journal of Science, Philadelphia Medical Reporter, New York Quarterly Journal of Psychological Medicine, Australian Medical Journal, Vanity Fair, and *Broad Arrow* have been received.

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Address

DELIVERED AT THE

MEETING OF THE MEDICAL TEACHERS' ASSOCIATION.

FRIDAY, JANUARY 15TH, 1869.

BY SIR WILLIAM JENNER, BART., M.D.,

PRESIDENT.

GENTLEMEN,—I am fully sensible of the honour done me when an Association, such as this is, composed of so large a proportion of the *élite* of the profession, elect me its President. The remarkable zeal in the promotion of the objects of the Association shown by the distinguished surgeon who has preceded me in this chair, and the great ability he displayed in the discharge of his duties as President, render the position at once more honourable to hold, but more difficult to hold with credit.

I should proceed at once to the business of the evening were it not that my post affords me an opportunity of saying a few, a very few words on a point regarding which I, as a teacher of clinical medicine, entertain a decided opinion. No one long engaged as a teacher in a medical school can fail to have arrived at a conclusion in respect of the wisdom of the regulations and character of the examinations of the various licensing bodies; and, so far as my memory serves, while I never met a man who approved of the regulations or the examinations, I am not sure that I ever met two men who agreed as to the precise change that ought to be made: so many men, so many opinions.

Now the opinion of so large and distinguished a body of teachers as constitute this Society ought, and must, exercise great influence on all questions of medical education. The opinion of this Association must have great weight in moving the several licensing bodies when they meet to frame regulations to guide the studies of medical students, and to frame the rules by which their examinations are to be conducted. But to have such weight, to exert such influence, the opinions expressed by this Association must represent the convictions of an overwhelming majority of the teachers who compose it. No licensing body would long resist the public opinion of the associated teachers; but the public opinion of the teachers, as distinguished from the opinion of individuals, has to be formed; and one great advantage attending the meetings of this Association is the opportunity they afford for ventilating and discussing the opinions of individuals, and so of forming a general public opinion among teachers on the subject of medical education and medical examinations.

I desire now, in a few words, to express for myself the opinions I entertain with regard to one important point in connexion with the question of medical teaching. At the same time, I do not wish to press the acceptance of my opinions on the Association. I desire only, so to say, to ventilate them.

The present tendency, it seems to me, is to educate the student too widely in the collateral branches of science, and too little in the practical; and not only to educate him too little in the practical, but—and this is the essence of the matter—to examine him imperfectly in the practical branches. The licence of the special licensing bodies ought to ensure to the public (for whose interest, and not for that of the profession, they have charters) a supply of men competent to treat them in sickness. The object and end for which they enjoy privileges are that they may send forth clinical physicians and clinical surgeons. Now, as a teacher of clinical medicine, I doubt if their regulations are so framed as to tend to attain this end in regard to my department; and I doubt still more if their examinations are so conducted as to ascertain if the student has attained this end. Clinical medicine can be learned only by those who attend regularly in the wards of the hospital; because in the wards only has the student an opportunity of witnessing the daily progress of acute illness, of watching the effect of remedies, and of seeing the relation between the symptoms during life and the changes after death on which those symptoms depend. The practice of the physician to the out-patient department affords to the student valuable supplemental clinical instruction.

Our hospitals yield abundant materials for clinical teaching, and the physicians to those hospitals are a body willing and competent to give the best clinical instruction; but the students who should profit by these opportunities comparatively rarely visit the medical wards. It is said, "It is easy to take a horse to the water; the difficulty is to make him drink." Now, speaking as clinical teachers, I think most of us could say that the difficulty is to get the horse to the water. Once get him there, and we could make him drink. Let the licensing bodies make the student attend the wards of the hospital, and then, with rare exceptions, he will leave with a fair amount of clinical knowledge, and such kind of clinical knowledge as will enable him to add to his stock with every case he sees. Now I doubt if any regulations as to the time, order, or method of the student's studies will secure his attendance in the wards—his diligent attendance—his regular attendance; will ever, in fact, succeed in forcing him to do that which it is essential for him to do if he is to be a clinical—that is, a practical—physician. All school rules and regulations, however successful they may be for ordinary attendance in the theatre, break down when applied for the same purpose in the wards.

There are two things which it is essential for the licensing bodies to do, if they are to fulfil the end for which the public created them—viz.: 1. So to dispose of the collateral studies that the student shall have *time* to devote to clinical study; I mean the student who desires to complete his education within the shortest possible time allowed, and so at the least possible expense. 2. So to conduct examinations as to give a marked, an unmistakable, prominence to the importance they attach to the student possessing clinical knowledge.

For my part, after long reflection, and after talking over the subject with many practical men, teachers and examiners, I see but one mode of attaining this object, and that one would be, I believe, effectual. It is this—namely, to test the candidate's clinical knowledge before submitting him to examination. Thus I would have the student made to understand that he must know, and must show to the examiners practically that he knows, how to percuss, how to palpate the abdomen, how to examine by auscultation the heart and lungs, how to test for albumen or for sugar, how to examine a heart, a lung, or a kidney after death; that he must show that he knows practically how to diagnose a largely hypertrophied heart, a solid lung, a pleura filled with fluid, a big liver, ascites, psoriasis, purpura, and such like simple things. To learn practically these things, he must go into the wards and the dead-house of the hospital; and the horse being once at the water, it would be the fault of his teachers if he were not forced to drink deeper than the shallow. The student must, however, if the end of forcing him into the wards is to be attained, be fully satisfied that he will be rejected if he is not a clinical physician; and the only way I say, in my opinion, to impress this on his mind, is to reject him *at once* for ignorance of practical knowledge. It must be made clear to him and to his hospital fellows who are to follow after him, that this knowledge is that without which he will not be admitted to the written or *viva voce* examination proper. Fail in this, and no amount of book or lecture knowledge will save him; for he will have no opportunity for displaying his learning. Knowledge would then take its proper place in relation to learning in his mind; and the medical wards of the hospital be as much frequented—as regularly frequented—as are the more popular lecture theatres.

As to any attempt to determine the mode by which clinical teaching is to be effected, it would appear to me to be far worse than useless. Every teacher will, if he be worth the name, have his own method; he will understand best how to convey the practical knowledge he possesses to the student, and the student will soon learn where he is taught with the most certainty the knowledge the licensing body compels him to possess. And one great advantage that the various methods adopted by different teachers of clinical medicine possess is, that it enables the student to select for his special teacher that one whose method the most perfectly suits his mental constitution.

I hope on some future occasion this subject may again be brought before the Association in such a form as to permit it to be discussed, and the advantages and disadvantages of compelling the student to satisfy the examiners that he possesses clinical knowledge, before being admitted to his examination proper, be stated at length.

Lectures
ON
ORTHOPÆDIC SURGERY.

Delivered at St. George's Hospital, 1868.

BY BERNARD E. BRODHURST, F.R.C.S.,
LECTURER ON ORTHOPÆDIC SURGERY AT THE HOSPITAL.

LECTURE V.

ON CONTRACTIONS OF THE LIMBS.

(Concluded from p. 36.)

THE *treatment* of these several affections varies as the pathological condition varies. Thus, as has been already explained, in spasmodic contractions, recourse can be had to section of tendons only when irritation has entirely or in great measure subsided; for contraction would necessarily recur if tendons were to be divided at an earlier period. Until this time has arrived, counter-irritants in the course of the spine may be employed, and nutrition should be promoted to the utmost. When irritation has ceased, the tendons of those muscles which remain permanently shortened may be divided. Among others, those of the flexor muscles of the leg—namely, the biceps, the semimembranosus and the semitendinosus—require to be divided, as well perhaps as the tendo Achillis. As an illustration of the condition to which I am now referring, I will mention to you the case of Mary W——, in Drummond ward.

This child was sent up to the hospital from Blackpool by Dr. Risk, suffering from contraction of the extensors of the feet, and of the flexors of the thighs and legs and the adductors of the thighs. In consequence of this state of the muscles, the trunk was thrown forward, so that the child could not stand without help. After some weeks of treatment, however, and after the flexors of the legs and the extensors of the feet had been divided, and mechanical means had been employed to overcome the other contractions, the child walked fairly in the ward with the aid of a stick. The change which was produced in the form of this child, from a crouching to an upright position, was so remarkable that it might well be doubted if its mother would recognise her child. There was also a severe form of strabismus. The internal rectus was divided by Mr. Power, and the removal of the squint tended much to improve the child's appearance.

As a result of infantile and other forms of paralysis, when structural shortening has taken place, tendons also require to be divided, as in the instance just cited. The result of operation in these cases is not, however, so favourable as in the former: more or less muscular weakness of the limb generally remains, notwithstanding the application of galvanism, excitants, &c.; so that mechanical support is required for a lengthened period after the operation. Where spasm has occasioned contraction, mechanical support also is required to be worn for some time; but in these cases it may be discontinued earlier, as the muscles recover power and resume their functions.

Both in spasmodic and in paralytic affections, distortion may be prevented by the timely use of adequate mechanical means. It is only, for the most part, when such means are neglected that contraction and structural shortening and deformities result.

When the flexor tendons have been divided, extension should be slowly made until it is complete.

When contraction of the thigh, through inflammation of or around the hip-joint, or other cause, has taken place, it is seldom necessary to use the knife. These contractions are overcome so perfectly by means of instruments for extension, that it is superfluous for the most part to divide either muscle or other resisting structure. Occasionally, however, a band of fascia may require to be divided, or perhaps the tensor vaginæ femoris. It is rare indeed, however, that this is necessary. I have also divided more than once the adductor longus, as well as the sartorius, which appeared to influence a limb injuriously; but I don't think that these operations have eventually benefited the patient, and I should not be disposed to repeat them.

Again, in contractions of the forearm, mechanical means are for the most part sufficient to overcome contraction. It is occasionally necessary, however, to divide the tendon of the biceps. When this is much contracted, it is raised considerably above the vessels, and may be divided without danger. And after the biceps tendon has been divided, the brachialis anticus, and the other contracted structures, yield readily to extension. Contractions of the wrist-joint also generally yield to mechanical means, when there is not any displacement of the bones of the carpus. When the hand is displaced backwards or forwards, it may be necessary to divide the flexor tendons before the articular surfaces can be placed in apposition. I will refer you to Eliz. C——, in Princess's ward, as an illustration in point.

When one or more toes are contracted in children, gentle bandaging will generally remove this deformity; but in later years, when the flexor tendon is rigid, it is necessary to divide it. In the adult, it is impossible to remove a well-marked deformity of this kind without dividing the flexor tendon. The tendon should be divided opposite to the first phalanx, and the puncture having healed, extension may be made very gradually. And in a similar manner the extensor tendon may require to be divided. This is much more rarely required however, and when it is done extension should be made more slowly, for the resistance is less. Even now-a-days we hear constantly of proposals to amputate toes which happen to be contracted, and especially the little toe; for there is supposed to be some special difficulty in restoring the little toe to its normal position, and consequently it is suggested, and with truth, that to amputate the toe is the shortest way of removing deformity. It should be remembered, also, that this short method of cure irrevocably maims the foot. I feel sure that I need not say here that amputation of a toe should not be thought of where it is not absolutely necessary. Nothing is easier than to restore the position and action of toes thus circumstanced by dividing the flexor or the extensor tendon, as the case may be, and by using subsequently gradual extension.

In contraction of the palmar fascia, mechanical extension will sometimes be sufficient to remove the distortion. In general, however, extension is exceedingly painful, and cannot be borne. Recourse should then be had to division of each contracted portion of fascia. So soon as the punctures have healed, extension may commence, and be carried on as rapidly as it can be borne. The palm of the hand and the fingers must then be fully unfolded; for should any contracted portions of fascia remain, the fingers will again in time be drawn into the palm of the hand.

Having shown you a case of congenital contraction of the fingers, and also another of non-congenital contraction, I now show you a third case, in which contraction is caused by chronic rheumatic inflammation of the hand. (Fig. 19.)

FIG. 19.

I show you this case without further comment, and merely for the sake of distinction; for although there is

contraction here, there is no analogy between this and the other forms of distortion. In the former there is simply contraction of the soft textures. In some instances the tissues external to the flexor tendons are alone affected, while in others the flexor muscles are retracted, as well as the fascia and other soft tissues; but in this last case to which I draw your attention, there is disease of the articular surfaces.

ON

THE NUTRITIVE VALUE OF DIFFERENT SORTS OF FOOD.

BY BARON LIEBIG.

(*Continued from page 38.*)

IT is considered a matter of course that when the albuminates are present, the nutritive salts are so too; but this is not always the case, and usually not in our food.

A striking example in this respect is afforded us in a hen's egg—in any egg, in short,—the popular opinion about which is, that it is at least as nutritious as an equal weight of meat. Physiologists have long since shown that an egg is not to be compared to meat as a means of nutrition. With meat we are able to support the life of a carnivorous animal, but not so with eggs: a dog eats the egg, but does not digest it; and in presence of a dish full of boiled albumen, or boiled yelk of eggs, or of both together, he will die of starvation.

When we consider that, in brooding the egg, the whole animal, with the flesh, blood, vessels, brain, bones and feathers, is developed from it, it is seemingly incomprehensible that the egg, taken as food, cannot serve for like formations when received in another organisation. This is quite simply to be explained by the disproportion of the constituents of the nutritive salts in the egg—of potash, of lime, and phosphoric acid, &c. The nutritive salts of the egg contain, to 100 parts phosphoric acid, 38 parts potash; meat equivalent to the same quantity of acid, contains 140 parts potash, being 102 parts more. The egg contains lime, it is true, but not enough by far for the formation of the skeleton of the animal. In the nutritive salts of meat the phosphoric acid is neutralised; in those of the egg, on the contrary, is 30 per cent. of free phosphoric acid. Now, from the egg blood ought to be formed; but blood is an alkaline fluid. Meat, in the nutritive process, is converted into alkaline blood; the egg, on the contrary, can only form blood of an acid reaction, which is incompatible with the organic process: nevertheless, free phosphoric acid is a necessary condition for the development of the animal. The fact is, that during the brooding time, the free phosphoric acid dissolves the carbonate of lime of the shell, which thus gets always thinner and thinner, and is at last not thicker than a sheet of letter-paper. Phosphate of lime is thus produced, and with it the material hitherto wanting for the formation of the bony scaffolding of the body—of the skeleton; and, as the free acid is gradually neutralised and used up by the lime, the blood receives the alkaline quality proper to it.

Thus, then, in the egg the building up of the body of the animal is provided for in the wisest manner. By means of the shell it receives the full nutrition required for the development of the embryo, and is also nutritive for man when taken with other food whose component parts are fitted to neutralise the free acids or to supply the place of the missing alkalies. If we compare the egg with milk, we find the latter is so composed that we may look upon it as a solution of the egg and the eggshell together.

The correctness of these conclusions is easily proved as regards meat. If raw or boiled meat be well soaked in cold or hot water, it loses with the soluble nutritive salts (phosphates) which the water draws out of it, its nutritive value. The residue of the meat will not be eaten by any animal, though, perhaps, if it is mixed with a little fat, an inexperienced young dog, when very hungry, will allow himself to be deceived and eat of it, but a second time he is sure not to do so. In the soaked meat the necessary conditions for its digestiveness (the nutritive salts) are all wanting.

The relations of the nutritive salts to the nutritive process, and the necessity for their presence, are easily intelligible. One principal ingredient of them, phosphoric acid, is a component part of all the tissues, the blood and the juices of the brain, and the nerves, and is quite as important for their formation as their combustible elements: potash, soda, iron, and common salt are preponderating elements of the blood.

Much has been said about the importance of common salt, and it is sufficient to point to the fact that Nature has provided for its presence in the egg, thus upholding its indispensability in the vital process. One-sixth part of all nutritive salts in the egg is common salt.

Whoever is a little acquainted with Nature will hardly doubt that in the organic world all is ordered in the most fitting manner, and has a meaning even when man does not understand it. As soon, however, as man lays his hand on the work, at once all is changed, sometimes for the better, often for the worse. The Divine gifts are not unfrequently spoiled; and this may with perfect truth be said of man's various food.

If, in an hospital, the half of the meat-broth be employed as a medicament for convalescents, and we say, for example, that in the used meat-broth the half of the nutritive salts of the meat is present, the meat remaining has only half the nutritive value of the same meat when roasted. If the boiled meat be given as a supplement to the roast joint, it does not add to it a nutritive power, as the meat long soaked in water has no nutritive quality more.*

In many different kinds of fodder, in order to establish a right proportion between the albuminates and heat-producing substances, the full effect can only be attained if the nutritive salts are present in sufficient quantity and those which are wanting are supplied. With sheep it has been observed that when fodder is given them consisting of 2¼ lb. of winter straw and 3 lb. of potatoes, a portion of the latter passes away undigested; but that if ¼ lb. of peas be added, the starch in the excrements disappears, and the animal gains in weight visibly, which before was not the case. Peas are rich in nutritive salts, and nothing can be more certain than that these contributed to turn to account the starch for the nutrition of the animal.

The very striking fact that in the fodder of animals 74 per cent. of the albuminates in wheat straw, 51 in oat straw, in clover hay 49, and in meadow hay 40 per cent. remain undigested, is to be explained perhaps by the absence of certain nutritive salts, as with these, as is the case with beans and peas, they are the most soluble, or the most easily digestible, of all nutritive substances. We should always keep in view that no single component part of our food acts of itself alone, and that the one missing part makes the others inefficient.†

In salting meat, about 15 per cent. of the meat-juice, and with it a certain quantity of nutritive salts, pass into the brine. Fresh roasted pork has therefore a greater nutritive value than raw ham, and this latter, again, a higher value than boiled ham. It is not easy to satisfy one's hunger with boiled ham. In like manner, the nutritive value of boiled and of fried fish is very different. Fish-broth contains nearly the same component parts as meat-broth, and in some countries fish-soups are as much esteemed as those of meat.

In cooking vegetables a similar wasting process takes place. The water in which they are boiled contains a preponderance of potash and phosphoric acid. It has been calculated that the water in which the fish of London is boiled during one year contains 600,000 lb. of potash and 207,770 lb. of phosphoric acid; and that of the vegetables, 326,548 lb. of potash and 63,161 lb. of phosphoric acid; all of which is lost in the sewers. Vegetables scalded with boiling water before they are cooked are, owing to a portion of the nutritive salts being thus extracted, less nutritious

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* It is the same as if the meat were divided in two parts, the one roasted, and the other lixiviated with water, and the two afterwards joined together. It will easily be understood that the roasted meat would not gain in nutritive value by the addition of a substance which had lost its nutritive properties. In the manufacture of the different essences of meat, the residue of the meat employed in their fabrication loses likewise a proportion of its nutritive value corresponding to the subtraction of nutritive salts contained in the essence.

† Professor Roloff, of Halle, published lately, in "Virchow's Archiv," a very remarkable fact relating to nutrition. He found that the foals in a breeding stud grew sick and died in great number. On examination it was found that the hay used was deficient in nutritive salts.

than strained vegetables, of which, as will have been observed, we can eat much less. Roasted potatoes are more nutritious than boiled.

By a correct choice in the mixture of food the nutritive salts wanting in one thing may be supplied by some other substance which we eat. Groats and milk furnish perfect nourishment even for an adult. The nutritive value of flour may be considerably augmented by the addition of fruit, as in the north of Germany, where oatmeal soup, mixed with fruit, is a favourite dish. Thus, too, potato soup is rendered more nutritious by the addition of peas, and potato food by being mixed with cheese and curds.*

Especially rich in alkalies and phosphoric acid are the fungi—mushrooms, truffles—and cabbage sprouts, the seeds of the vegetabilia, the leek and onions. Wine must abounds most in alkalies, one litre containing 2·2 grammes of potash, and 0·5 grammes of phosphoric acid; and also the water in which asparagus has been boiled, and for this reason, and on account of its organic component parts in spring, when there is a scarcity of the juice of plants, deserves to have notice taken of it by physicians, who might apply it as a cure. To these may be added lime-juice, which in the English navy is used as a remedy for scurvy. Twenty-eight lemons yield one litre of juice, containing two grammes of potash and 0·3 grammes of phosphoric acid.

Of all substances used as food for man, corn undergoes the greatest change in its nutritive value when converted into flour. Wheat and rye corn contain more nutritive salts than meat, but wheaten or rye flour very much less than meat. The nutritive salts in meat are, however, the same as in corn.

It is clear that what is true regarding meat must also be true regarding corn, as well as for every other sort of food, and if the nutritive value of meat be diminished by being deprived of the nutritive salts, that of flour must be so too in the same proportion as it contains a less amount of nutritive salts than corn.

In 1000 parts of pure meat are contained 13 parts, in weight, of the nutritive salts; in the same quantity of rye and wheat corn, 21 parts, and in a like quantity of rye flour only 12 parts of the nutritive salts, and in wheaten flour only 7. This difference is extraordinarily great, and in the nutritive value the difference is also much greater than is generally believed. One of the most excellent French physicians, Dr. Boudens, informs us that, during the Crimean war, the Russian prisoners, accustomed as they were to a very coarse brown bread, were not sufficiently nourished by the rations of bread which the French soldiers received, and that it was found necessary to increase their rations. It is a scientific fact, which Magendie has proved by experiment, that a dog dies if fed on white bread, while his health does not suffer at all if his food consist of brown bread (bread made of unbolted flour).

All this has been said hundreds of times, but for those who are daily seated at a well-furnished table, and have a choice of dishes, the difference in their relative nutritive value, and the change occasioned in their power of nutrition by the process of cooking, is a matter taken little notice of, and at last it is thought that such difference does not really exist.

Where custom is concerned, the generality of persons are hard-headed; and only when, as on an anvil, some thousand blows have been given, is any impression made. The laws of nutrition are so simple that a child can understand them; nevertheless it will be still a long time before the general public will turn to account the knowledge which science has obtained.

The conditions are of course very different for those to whom the feeding of a whole class is entrusted; for of them it should be imperiously demanded that they at least understand as much about the nature of food as the farmer does of the fodder he gives his ox from which he demands work, or the cow to which he looks for milk, or the sheep which is to give him wool—all of which he would fain maintain in health and good condition.

The great mass of the population is, on the whole, better provided for than formerly; wages are higher; the dwellings and the sanitary arrangements are improved, as the list of deaths shows: and yet, in spite of this, the efficiency of the male population for military service diminishes on the continent and in the manufacturing districts to an extent that is alarming. The chief source of this can be sought only in a deficiency of nourishment, the ill-effects of which are especially great in youth. Then, too, there is the sitting for a long time in school in badly ventilated rooms, and the accumulated head-work, which undoubtedly act unfavourably on the corporeal development. Air is a requisite of life as much as food, and its purity is the most necessary of all conditions if health is to be preserved.

Many millions more men could be daily fed in Germany if it were only possible to persuade the population of the advantage which bread made of unbolted flour has over that ordinarily eaten. In taste and in digestiveness it is preferable; yet the attempt to introduce it in Munich failed. The servants and the charwomen refuse to eat it, and only a few families adopt it who are not disconcerted by its darker colour. Children like it exceedingly, and their instinct is an excellent pledge for the nutritive value of the bread.

It is clear that we can give back to common flour the full nutritive value of the corn, if, in making bread, we add the missing nutritive salts which, when the corn is ground, pass away in the bran. It is this consideration on which the composition of Horsford's baking powder rests. It supplies the place of leaven and yeast, and in the United States of America is now in general use. It consists principally of the nutritive salts of corn (phosphoric acid, potash, lime, and magnesia), in such a form that, when mixed with the flour, carbonic acid is developed in the kneading, by which the dough and the bread acquire the porous condition which they ought to have. Bread prepared with this baking powder has an excellent flavour, and looks as well as, and is more digestible than, the usual bakers' bread.

As an example of the good effect produced on the digestion and nutrition by supplying the nutritive salts wanting in any food, I may cite the food for infants, the preparation of which I made known four years ago.

The evil effect of the much-used pap given to children, both in the country and in towns, is well known to physicians; for it is quite intelligible that good cows' milk by being mixed with wheaten flour is not improved but depreciated, because wheaten flour, on account of its deficiency of the nutritive salts, is a very incomplete sort of food.

Dr. John Zimmermann, who ninety years ago was famous as a physician, says as follows, in his work "My Experiences in Medicine," on the subject of children's pap: "Pap is a poison, the use of which senseless custom has consecrated. I know very well that many millions of children are nourished with pap, but it has also cost the lives of hundreds of thousands; and I am well aware it were easier to move a mountain than to convince a brainless woman of the disadvantages of pap..... The well-known Parisian physician, Dr. Vandermonde, shares my opinion that pap is the worst food for children—the source of most of their maladies, their deformities, and death."

The same pap made fluid with malt is converted into a perfect nutriment by simply supplying the missing potash, and by a slight increase of other phosphates; and a number of facts show most indubitably that this soup, without any additional food, nourishes children admirably, and that it brings none of the evils in its train which Zimmermann so forcibly puts forward. That the good effect of it depends on the proper preparation is a matter of course.

In the preparation of all victuals, we must bear in mind that, with the exception of milk, they must, to be agreeable to our taste, possess the reaction of the gastric juice, which is acid. Most vegetable aliments—the juices of plants, the flour of the cereals, coffee, meat-broth, tea—change the colour of blue litmus into red.

An alkaline food has for the adult a disagreeable, often even a disgusting taste; and hence it may, perhaps, come that the flesh of freshly-slaughtered animals repugns us after a time. Meat, which the butcher says has hung long enough, always has an acid reaction; and the custom of taking lemon-juice with neutral food—such as oysters, or with others slightly acid, such as fried fish—may possibly arise from this cause.

Vegetable food and milk contain very much more earthy

* In India rice is never prepared alone, but always with the addition of certain pulse (Cicer arietinum, Calamus indicus, Dolichos uniflorus, Dolichos sinensis, Phaseolus aconitifolius, and Phaseolus mungo,) which abound in albuminates; and, as Dr. Forbes Watson informs us, the mixture is in such proportion as to correspond in nutritive value to that of unbolted wheat-flour.

phosphates than meat; and the preference of children, during the period of greatest growth, for bread, puddings, and milk food, which gives most material for the formation of their bones, may be explained by this fact. Carnivorous animals eat, as is well known, a portion of the bones with the meat.

As to the effect of coffee, tea, meat-broth, tobacco, and the betel-nut on the vital processes and on the health, we have till now but suppositions. What we know with certainty is, that they are not nutritive substances, or that they do not contain them in such quantity that they—with the exception of alcoholic drinks, which also act as heat-giving matter—can be taken into account when considering the subject of nutrition. Carnivorous and herbivorous animals live without them; and it would seem, therefore, that they are not a necessary for man. Inexplicable, however, it still is, that among all the people of the old and modern world, among all the wild tribes, enjoyments of this sort, of the most different form and nature, are to be found, and that these enjoyments have grown into necessities.

The poorest factory workman imposes on himself privations in his food and other necessaries, in order to spare a few pence for tea, tobacco, or alcohol. There must be a deeper cause for this than mere custom. If by the word health we understand only the normal state of the organs and their right interaction, then all stimulants which disturb this state are hurtful. But the idea of health comprises something more. If we take a family of ten persons living in the same house, who breathe the same air, drink the same water, and enjoy the same food, their bodily state is still not the same. If in the place where the family lives an infectious disease breaks out—the cholera, for example,—two individuals possibly of the household will be attacked by it, and often not those of whom we say "they are of weak constitution," but just the stronger ones. If we overlook the newest theory, that attributes most diseases to a fungus which finds in the body of the ailing person a fitting soil for its propagation, and in others, who remain healthy, the contrary, and seek for a general term to express whatever is injurious—change of temperature, &c.—it is clear that healthy individuals oppose a greater resistance to the harmful influences than the weakly; those who remain well greater than those who are attacked.

This resistance may be compared to a force, the degree of which depends on the strength of one party and the weakness of the other. We must not confound it with the force on which the circulation of the blood, or the movement of the intestines, or the power to work, but it would seem as if we ought to look for it in the nervous system.

All stimulants, and herein is but one opinion, act on the nerves, and many of them, perhaps, in suchwise that they temporarily increase the power of resistance against outer disturbing influences. No one of them can be compared to another in its effect, for each acts, according to the state of the body and to the quantity, in its own peculiar way: many may serve quite simply to show us the state of things within. Of this inner state man knows nothing. Under certain conditions a chill is felt inwardly without the temperature of the body diminishing on that account, and warmth is experienced without there being an increase of heat. These sensations point to a state in which certain nerves throw off more warmth than they receive, or receive more than they throw off. The sensation serves only to announce an inequality, which, if it be slight and passing, can, by various stimulants, be easily removed. If it be lasting, it is looked on as a symptom of illness.

A cup of meat-broth has often a strengthening effect, not because its component parts generate strength where there is none, but because it so acts on our nerves that we become conscious of the existing strength, and sensible that this strength may be disposed of. The feeling of weakness, which is again an action of the nerves, then decreases or vanishes. In cases of real weakness the broth does not give strength.

(To be continued.)

AT the annual meeting of the subscribers of the Leeds Hospital for Women and Children, on the 13th inst., Dr. Heaton was appointed Consulting Physician in succession to the late Dr. Hobson, who was instrumental in establishing the institution, in which he took a warm interest.

A CASE OF APHASIA.

BY WILLIAM MARCET, M.D., F.R.S.,
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THE following case appears to me of interest, from its showing that galvanism may, in some instances, be used with advantage in the treatment of aphasia, and also from its bearing out the views on the pathology of the disease ably advocated by Dr. Maudsley, in his interesting paper on Aphasia communicated to the Medical Society of London, and lately published in THE LANCET.

Henry H——, aged thirty-four, a tall, stout brewer's drayman, called on me about the 24th of May, 1868, entering the room with a steady gait, but his face exhibiting the appearance of a somewhat blunted intellect. His wife gave me the following information:—He has suffered from frequent attacks of rheumatism in the wrists and knees, but has enjoyed good health in other respects, and has lived a sober life. Two months previously he had a fit, when, on awaking from a deep comatose sleep, he could no longer speak; his right arm and leg were powerless; was then barely able to open his mouth to any extent, or to protrude his tongue; could swallow fluids, but refused to take any solid food. Three days after the fit his left side also became paralysed, without, however, the occurrence of any further attack. A week subsequently to the original seizure he began to improve, and strength gradually returned, beginning in the right side. He was confined to his bed for a fortnight.

In answer to my questions, he says, indifferently and indistinctly, what may be taken for "Yes, sir," and "No, sir," apparently without a clear notion of his expressing either an affirmative or a negative. His answers also consist of certain articulated sounds without meaning, such as *besses*; these sounds appearing as if uttered mechanically, without being prompted by the will. Motion free in right and left side, although rather less power in the left. Tongue protrudes, and moves from right to left quite freely, but he cannot raise the tip so as to touch the palate; tongue not swollen. As to the state of the larynx, his vocal sound is harsh, and in a low key. Deglutition perfect. Examined with the laryngoscope, his vocal cords cannot be viewed; and in the act of phonation, instead of the cords being seen to move towards each other laterally, the larynx is observed to close, beginning apparently with a contraction in an antero-posterior direction. I tested the cutaneous sensibility of the arms and legs with the two points of a pair of compasses. On both arms they were distinctly felt when ¾ in. distant from each other; but the extreme degree of sensibility in the right arm was such as to allow of a clear perception of the two points at a distance of $\frac{5}{16}$ in., while it was not so with the left. On the right calf the two points were felt at an interval of ¾ in.; on the left at an interval of 1¼ in. The experiment showed therefore less cutaneous sensibility in the left arm and leg than in the right.

I determined upon trying at once the effect of galvanism with Smee's battery and an interrupted induction current, one of the electrodes being applied, by means of Mackenzie's galvaniser, to the tongue, and the other to the back of the neck, in contact with the spine. After passing the galvanic current for a few minutes he could pronounce the letters A, B, C, E, F, G, H, I, L, M, N, indistinctly; O, P, R, T, indistinctly; V, K, with a little trouble. After passing the current for five minutes longer he repeated "no" with some little trouble, and the words "to-day" occasionally very well.

May 28th.—I galvanised him for twenty minutes; then said "A," after my showing him that his lips must be kept open. For "Q" says "two." Cannot yet say "D," and "K" is imperfect. Has much trouble in pronouncing the letter "S." I made him say "T" correctly several times in succession, and then told him to pronounce the letter "M," when he said "Tom" for "Tim;" but by waiting for a few seconds he pronounced "M" very well for the first

time that day. After galvanising him for half an hour he could count from one to fourteen, which, however, he did imperfectly, mistaking one figure for another.

June 3rd.—After being galvanised, he recited the letters of the alphabet and counted to ten very well.

15th.—Has been galvanised on four different days since June 3rd; can now apply his tongue to the roof of the mouth, and say a few simple words the meaning of which he understands, but breaks down with a sentence.

July 13th.—Can repeat short sentences of words in one syllable.

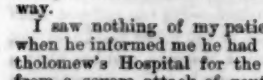
Aug. 5th.—The first letters of certain words frequently dropped, such as *l* in "let." I succeeded in correcting this for the time, by trying in succession several words beginning with an *l*—as "like," "loose," "loan;" and having found one he could pronounce, he was directed to repeat it three or four times in succession. I then returned to the word "let," which he could now express quite distinctly and correctly. Other similar mistakes were corrected in the same way.

I saw nothing of my patient till the 16th of November, when he informed me he had been an in-patient at St. Bartholomew's Hospital for the previous six weeks, suffering from a severe attack of gout (rheumatism), during which there had been an increased state of weakness of the right arm and leg. Notwithstanding this circumstance, his speech had continued improving, and he could now express himself tolerably well, although some words had to be guessed at.

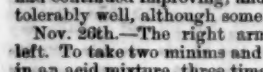
Nov. 20th.—The right arm decidedly weaker than the left. To take two minims and a half of "liquor strychniæ," in an acid mixture, three times a day.

Dec. 3rd.—Had three epileptiform fits since I last saw him, occurring on the same day. To take one-eighth of the dose of the strychnia mixture, which, on Dec. 9th, was increased to half the original dose. Speech much the same.

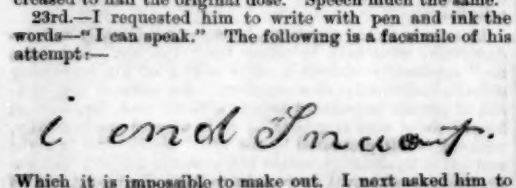
23rd.—I requested him to write with pen and ink the words—"I can speak." The following is a facsimile of his attempt:—



Which it is impossible to make out. I next asked him to think of a sentence, and communicate it to me in writing; and he wrote as follows:—



Which, he said, meant "I am better." There is here not even an attempt at writing three distinct words. I now asked the patient to copy a sentence from a book, and he wrote:



Which can easily be made out as—"the dense fog now prevented further progress." He is now decidedly weaker in the right than the left side; and his tongue points slightly to the right. As to his cutaneous sensibility on that day: the compasses-points were distinctly felt on the right calf at a distance of 2½ in., and on the left at the distance of 1½ in.; there was also a lesser degree of sensibility in the right than the left arm.

Jan. 2nd, 1869.—Power returning in the right side. Can say tolerably well all he wishes, although some words are to be guessed at. Feels well enough to go back to work.

The progress of the case may be summarily stated as follows:—First, hemiplegia of the right side; secondly, hemiplegia of the left side; then partial recovery; after this there was a return of hemiplegia of the right side, which persisted, although gradually mending. The speech began to return from the very first application of galvanism, and continued steadily to improve. He took iron with quassia and with quinine; also proto-iodide of mercury in half-grain doses twice daily for about three weeks. His head was shaved, and the back of his neck repeatedly blistered. This treatment appeared to act beneficially, although it is difficult to say to what extent. My observations on the patient's handwriting were suggested in some respects by those of Dr. W. T. Gairdner, related in his admirable paper on Aphasia. They confirm the views now generally entertained as to the cause of aphasia: that the disease is not due to paralysis of the organs of speech, but to an absence of the mental power necessary to co-ordinate and direct the action of the muscles concerned in the utterance of speech. It is true that there appeared a slight want of power in the muscular action of the tongue, to raise it to the palate, when the patient first applied to me; but this soon passed off, and cannot be considered as the real cause of his speechless condition.

Harley-street, Cavendish-square, Jan. 1869.

TABLES ILLUSTRATING THE EFFECTS OF REMEDIES UPON UNCOMPLICATED ACUTE RHEUMATISM.

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THE following tables give the experience of St. George's Hospital in the treatment of acute rheumatism for the five years from 1857 to 1862. The cases were divided among the late Dr. Page, Dr. Bence Jones, Dr. Pitman, and Dr. Fuller, who formed the medical staff of the hospital in the period selected. The tables were compiled partly from the clinical books, which the physicians placed at my disposal without reservation, and partly from my own observations as medical registrar, which extended over about half the time.

The chief object in view was to ascertain the frequency of the heart complications of rheumatic fever under different plans of treatment. In order to avoid repetitions in the tables it is needful to state, first, that every case presented on admission well-marked symptoms of acute rheumatism; secondly, that in every case the heart was, on admission, examined with the stethoscope, and found to give natural sounds. All patients who came in with evidence of cardiac affection were therefore excluded from the table; none others were omitted, excepting those of which the notes were defective.

The tables include 160 cases, arranged according to treatment. The patients having been under the care of different physicians, and having been subjected, without reference to any experimental purpose, to the measures which under various circumstances were thought to be most to the advantage of each, the classification was occasionally complicated. No care was spared to ensure accuracy. The tables may be accepted as a trustworthy epitome of the hospital records—that is, of the clinical books, for which the physicians are responsible, collated as far as possible with the notes of the medical registrar. It is not likely that any considerable fallacy has crept in. It may possibly have happened in one or two cases among so many that a cardiac murmur was not recognised on the first day of its existence, or that an abnormal sound, if slight or transient, may have eluded observation altogether; but this would seem to be the extent of error which can be ascribed to the tabular statement.

TABLE I. — VENESECTION.

Eight Cases. Heart affected in four. Average time in hospital forty-one days.

Name.	*Age.*	*Days affected before admission.*	*Characters of attack on admission.*	TREATMENT.	*State of heart throughout.*	*Progress, &c.*	*Number of days in hospital.*
G. W.	17	20	Pain and swelling of right hand and wrist. Pain, without swelling, of most of the other joints.	Bleeding to ten ounces. Calomel, three grains; opium, one grain: every six hours. Next day less often. Saline draught, with six grains of Dover's power, every six hours.	Præcordial distress; but no abnormal sound.	Sore-throat; much sweating.	34
E. H.	23	14	Ankles chiefly affected. Acid sweat.	Bleeding to twelve ounces. Calomel, three grains; opium, half a grain; twice a day. Saline draught every six hours. Quinine, ten grains daily.	Unaffected.	Other joints attacked in succession.	58
S. H.	21	2	Second attack. Knee and wrist much inflamed. Considerable fever.	Bleeding to ten ounces. Calomel, two grains; tartar emetic, one-sixth of a grain; opium, one-fourth of a grain: every four hours. Saline draught, with acetate of potash, half a drachm; iodide of potassium, five grains; Dover's powder, ten grains: every six hours. Afterwards a saline draught, with bicarbonate of potash, one drachm: every four hours.	Unaffected.	Irregular.	51
M. S.	26	2	Feet, elbow, and shoulder swollen; redness over tendons. Thirst and much fever.	Sulphate of magnesia, two scruples; bicarbonate of potash, two scruples: every six hours. On the third day bleeding to twelve ounces. Calomel, three grains; opium, half a grain: twice a day. Leeches when murmur heard.	Slight friction-sound on the ninth day, which subsided on the twelfth.	Much sweating; joint-affection very obstinate.	41
W. S.	27	3	Much pain in joints; fever and sweating.	Bleeding to twelve ounces. Calomel, four grains; opium, one grain: three times a day. Saline draught, with compound ipecacuanha powder, five grains: every six hours. Vapour baths.	Systolic murmur after four days at the apex and base.	Pain shifted much; recovery slow.	36
M. W.	21	7	Second attack; affecting shoulders, knees, and one finger-joint. Sour sweat.	Calomel, four grains; opium, one grain: every six hours. On the second day, bleeding to twelve ounces. Next day, bleeding to twelve ounces. Afterwards a saline draught, with bicarbonate of potash, ten grains: every six hours. Mercury recommenced when murmur heard.	Roughness, with systole, after sixteen days, which developed into a well-marked mitral murmur.	Much fever; several joints successively affected; much acid sweat; red eruption of skin. Three relapses.	84
W. B.	16	10	Second attack. Many large and small joints affected.	Bleeding to twelve ounces. Calomel, five grains; opium, one grain: three times a day. Afterwards the gums became sore. Saline draught, with compound ipecacuanha powder, four grains; bicarbonate of potash, ten grains: every six hours.	Unaffected.	Pain in chest increased by inspiration.	13
C. H.	17	7	Fifth attack. Many large joints swollen and painful.	Bleeding to twelve ounces. Saline draught, with bicarbonate of potash: every six hours.	Unaffected.	Gradual progress.	20

TABLE II. — MERCURIAL TREATMENT.

Six cases. Heart affected in two. Average time in hospital twenty-nine days.

Name.	*Age.*	*Days affected before admission.*	*Characters of attack on admission.*	TREATMENT.	*State of heart throughout.*	*Progress, &c.*	*Number of days in hospital.*
W. D.	17	10	Much fever; fetid sweat. Almost all the large joints affected.	Calomel, five grains; opium, one grain: every six hours for ten days, then less often.	Unaffected.	Steady progress after first few days. Sore-throat.	19
R. J.	24	9	Almost all the large and small joints affected. Rancid perspiration.	Calomel, four grains; opium, one grain: every six hours to salivation.	Unaffected.	Gradual progress.	28
J. J.	13	3	In ankle and hands. Pain in chest, and cough.	Calomel, one grain; compound soap pill, one grain; compound powdered antimony, two grains: twice a day; after two days, every six hours until gums were sore. Leeches after murmur was heard.	Systolic murmur at apex, two days after admission.	Pain shifted about a good deal.	40
W. H.	23	7	Third attack. Knees, shoulders, and arms affected. Much heat and perspiration.	Calomel, four grains; opium, one grain: twice a day to salivation.	Unaffected.	Gradual progress.	12
R. B.	23	6	Ankles, knees, and wrist, red, painful, and swollen. General symptoms marked.	Calomel, four grains; opium, one grain; on night of admission, and afterwards four times a day. Salivation produced.	Soft systolic murmur at apex, day after admission.	Much sweating. Pain gradually subsided.	17
T. K.	23	7	Chiefly in knees. Effusion in synovial membrane.	Calomel, three grains; opium, one grain: thrice a day. Iodide of potassium, two grains; colchicum wine, twenty minims: thrice a day, &c.	Unaffected.	Several relapses.	59

TABLE III.—SPECIFIC AND OTHER REMEDIES NOT ALKALINE.

Thirteen cases. Heart affected in five. Average time in hospital thirty-two days.

Name.	*Age.*	*Days affected before admission.*	*Character of attack on admission.*	TREATMENT.	*State of heart throughout.*	*Progress, &c.*	*Number of days in hospital.*
J. Q.	20	5	Soles of feet and most large joints affected. Pain in chest. A drunkard.	Pill of calomel and opium on admission. Nitre, thirteen grains, every six hours. Gin, four ounces daily.	Increased action.	Acute pain on inspiration. Pleuritic friction.	29
A. S.	19	4	Second attack. In nearly all the large joints. Much heat and sweating.	Nitre, ten grains, every six hours. Morphia draught occasionally.	Unaffected.	Regular progress.	15
S. F.	22	21	Second attack. Not severe. Wrists red and swollen.	Nitre, ten grains, three times a day.	Unaffected.	Good progress.	21
M. C.	47	3	Second attack. Many large joints affected. Much characteristic sweat.	Nitre, thirteen grains, every six hours.	On third day, low systolic murmur at base and apex.	Pain lingered in knees.	45
C. R.	29	30	All the joints red and swollen.	Nitre, ten grains; colchicum wine, fifteen minims; spirit of nitrous ether, half a drachm: every four hours. Morphia draught at night. Finally, tartrate-of-potash draught, three times a day.	Unaffected.	Irregular.	25
H. A.	30	7	Second attack. Symptoms very characteristic. Knees and hands most concerned.	Dover's powder, ten grains, on night of admission. Nitre with colchicum wine, ten minims, every six hours.	Unaffected.	Several joints successively affected.	23
M. A.	46	8	Second attack. Very severe pain in knees, hips, hands, and shoulders.	Nitre with iodide of potassium, two grains, every six hours. Morphia draught every night. Finally, guaiacum mixture.	Unaffected.	Became chronic, and so remained.	38
G. W.	36	14	Pain general.	Guaiacum mixture, an ounce and a half, three times a day. Dover's powder, fifteen grains, every night.	Systolic murmur at base after ten days; at first faint, afterwards loud.	Gradual.	40
S. B.	27	14	Third attack. Symptoms hardly acute when admitted.	Guaiacum mixture, an ounce and a half, three times a day. Calomel and opium when pericarditis came on.	Friction after two days.	Little pain in limbs.	28
M. C.	17	21	Wrists, ankles, and shoulders involved. Skin hot and dry; tongue red and cracked. Bed-sores. Had been much neglected.	Dover's powder, ten grains, every night. Bark, with iodide of potassium, four grains; bicarbonate of potash, ten grains: every six hours.	Unaffected.	Gradually recovered.	30
R. B.	17	7	Knees chiefly. Some febrile disturbance.	Extract of belladonna, one grain, three times a day; afterwards, every four hours. When friction was heard, calomel, leeches, &c.	Loud systolic murmur at base after three days. At end of fortnight, general pericardial friction, with stabbing pain. Murmur at base and apex remained, with much palpitation and dyspnœa.	Pupils dilated; vision indistinct. Pain in limbs soon subsided.	31
G. R.	17	5	Wrists, loins, groins, and other parts affected.	Opium, one grain, every four hours. When friction was heard, calomel and opium, leeches, &c.	Loud friction on second day, with much distress; systolic murmur afterwards.	Pain soon ceased. Urine temporarily loaded with albumen.	60
M. D.	21	21	In knees, and all the joints of the upper extremities.	Sulphate of quinine, six grains, every six hours.	Unaffected.	Regular progress. "Swimming in head."	18

TABLE IV. — SIMPLE SALINE TREATMENT.

(SALTS OF POTASS WITH CARBONIC AND THE VEGETABLE ACIDS; LESS THAN THREE DRACHMS DAILY.)

Seven cases. Heart affected in two. Average time in hospital thirty-three days.

Name.	*Age.*	*Days affected before admission.*	*Characters of attack on admission.*	TREATMENT.	*State of heart throughout.*	*Progress, &c.*	*Number of days in hospital.*
E. M.	37	1	Much fever. Pain very general.	Effervescing saline draught every six hours. Ten grains of nitrate of potash added when murmur was heard.	Systolic murmur heard at base on third day.	Irregular progress.	39
T. C.	18	4	Well marked. Legs, hands, and elbow affected.	Tartrate of potash draught every six hours.	Unaffected.	Steady.	35
J. E.	40	30	Third attack. Redness and swelling in a great many situations. Skin hot and dry.	Saline draught, with bicarbonate of potash, ten grains, every six hours. Colchicum added when acute symptoms had ceased.	Unaffected.	Gradual recovery.	16
S. L.	24	7	Knees chiefly affected.	Saline draught, with bicarbonate of potash, five grains, every six hours. After murmur, a cinchona draught, with ether and iodide of potassium, &c.	Murmur at base of heart after fifteen days, supposed to be anæmic.	Became localised in elbow. Transferred to surgeon.	51
C. B.	25	2	Knees chiefly affected. Much sweating. Pulse oppressed.	Bicarbonate of potash, one scruple, every six hours. After friction, leeches to præcordium; calomel, five grains, every night; &c.	Friction on fourth day. Endocardial murmur heard later.	Other joints subsequently affected.	40
J. B.	35	7	Almost all the joints affected in succession. Parotid gland swollen.	Saline draught, with bicarbonate of potash, five grains, every four hours. Calomel, three grains; opium, one grain: on night of admission.	Unaffected.	Abscess behind jaw, which was opened.	21
J. N.	28	7	Pain universal. Much heat of skin and perspiration.	Saline draught, with spirit of nitrous ether, half a drachm, every six hours.	Unaffected.	Gradual recovery.	19

(To be continued.)

ON

RUPTURE OF THE VAGINA IN LABOUR.

BY J. BRAXTON HICKS, M.D., F.R.S.,

LECTURER ON MIDWIFERY AT GUY'S HOSPITAL, EXAMINER IN MIDWIFERY AT THE UNIVERSITY OF LONDON, ETC.

THE recent case* of total severance of the uterus, the placenta being still within it, from the living body, shortly after delivery of the child, has, as might be expected from its rare occurrence, attracted much attention in the profession and excitement out of it. It has been considered by those without, that such an abstraction of the womb could only be effected by great violence; and this is probably the most natural impression the accident would create on those who have not studied medicine. But from remarks I gather from some within the profession, there seems to be a want of clear appreciation of the forces which may produce rupture of the vagina; and this deficiency is to be found in most, if not in all, of the works on the subject.

Let us therefore consider this point for a few minutes. It is well known that when the womb acts normally after the opening of the mouth, if no obstacle interpose, the contractions drive the child through the passages, itself following closely in contact, and thus the child is born; after which, the contractions still continuing, the afterburthen is expelled, assisted by bearing down or external pressure.

But suppose the mouth of the womb does not open, while the contractions still remain powerful, what is the result? Either the womb fails to expel, the patient dying from exhaustion, or, very rarely, the putrid fœtus remaining within, tolerated by the system; or, if the tissue be unable to bear the enormous power of its own contractions, a rent occurs in some part according to the relative strength of the parts. Not unfrequently this rent commences at the edge of the rigid mouth, in which case it extends upwards into the body of the womb and downwards into the vagina a varying distance in a more or less perpendicular direction. All this time there is no particular tension on the vagina.

But the case is different if the head of the child have escaped the mouth of the womb as far as the neck, and have met with opposition from the bones of the pelvis, the contractions still being active. The child now becomes a fixed point, and the tendency of the force of the womb is, according to simple mechanical law, to act in the opposite direction—that is, to glide itself off the child upwards to the fundus. This it would of course do immediately, were it not prevented. What, then, restrains it? First the vagina, and this yielding, the ligaments with the cellular tissue. Primarily the strain is on the vaginal walls, the tension being increased by its distension by the head. If the vagina is short, as in some persons, then the tension is rapidly felt, especially if the womb is at all oblique, as in the ordinary English position for delivery. If, then, any part of the vagina cannot bear the strain of the uterus driving itself backward, it gives way, and, as we should *à priori* expect, in the transverse direction. Supposing the womb to be placed obliquely, the rent will probably be on that side to which the head inclines; and the womb, being now released, draws itself off the child, being attached to and held by only a portion of the vagina; so that when it has, as one may say, expelled itself off the child, it sinks down again towards the pelvis, on that side, of course, on which the vaginal wall remains entire; the child remaining with its head in the lower part of the passage, the rest of the body passing through the rent. Such a case I have myself seen, strongly exemplifying the mode by which the womb produces this accident. But if, instead of an obliquely placed womb, we have it quite in the middle line, as in the continental mode of delivery, then its force will be felt equally on either side, and it is quite possible to conceive that the vagina might be torn throughout, or nearly so, and so extensively that the strain would fall on the ligaments. Let us imagine these latter not stronger relatively to the womb's power than was the vagina; is it at all out of probability that these would also give way—at any rate, to such an extent as to permit the completion of their severance by a little extra drawing down, as by forceps, coughing, or violent sickness? The ligament which principally resists the backward force of the womb, after laceration of the vagina, is the round one. The broad ligaments possess at full term of pregnancy so little substance that they may be virtually excluded, being rather a medium for the support of plexus of bloodvessels. If these round ligaments were delicate in such a case as above suggested, then the womb might as readily tear them as it did the vagina. Indeed, although the whole attachments acting together keep the womb in place, yet one of them having given way, the remainder will follow with but little difficulty. In ordinary labours the vagina receives support from the abdominal parietes and the diaphragm, by their action preventing in a measure the backward tendency of the womb.

Now, this transverse rupture of the vagina is not so rare as is generally supposed; for instance, Dr. Collins, in his "Practical Treatise on Midwifery," mentions a considerable number of cases; and they can be found in most authors. I have seen two cases within a few years. Sometimes the rent is at the point of junction of the womb and vagina, sometimes just below, sometimes just within the cervix; but they all owe their origin to the same force. The extent of this rent varies much. Dr. Collins mentions one case in which it was 4½ in. long. This must embrace a large amount of its circumference. In those cases in which the fœtal shoulders have passed through it must always be very considerable. Dr. Ingleby ("Obstetric Medicine," p. 185) says: "*The rent is usually more or less oblique, sometimes including nearly its entire circumference, and thus virtually dissevering its connexion with the uterus.*" The fair consideration of these facts will, I think, prepare us to receive as a possibility that the womb may be so nearly severed from the vagina by action of the womb alone as to require only a little force more to detach it altogether. That serious symptoms will *necessarily* occur at first with fatal rupture of the vagina, is contrary to the statements of authors and of my own experience. Nor is it necessary to have external hæmorrhage. In one case I saw, although the child had passed through the rent, there was no external bleeding until after delivery, the occupation of the vagina by the head preventing its flow. When the head has passed the external parts, then we find it of a mixed character—dark, bright, and clotted.

If we refer to the evidence at the various trials of the case above alluded to, we shall find that after the patient had been in labour for twenty-four hours, the medical man remained with her, and finding at the end of three hours she was becoming exhausted, he thought it proper to use the forceps. The pulse was already 120 per minute, and she was plied with some stimulants, the pains becoming less powerful. The forceps were applied in the continental position, and, upon traction being made, they slipped with some degree of rebound. Upon their reapplication the child was delivered alive without special difficulty. A quantity of mixed blood flowed, with, I am informed, some clots. The patient then fell into a very faint state. She was moved up higher on the bed; secale and stimulants were given. Pressure on the abdomen was made, and there was not very much loss after that which directly followed the delivery. After waiting about half an hour, the medical man made gentle traction on the cord (I am told without passing his thumb into the vagina), assisted by external pressure, and to his surprise the womb came down wholly detached. The patient lived but a short time after. The nurse had taken the baby into the other room to wash it, and the other person in the room besides the assistant was unversed in attendance on labours. So that, apart from the fact that the womb was detached from the body, there was no witness of force having been used by the medical man. Much stress was laid at the inquest as to his calling the mass a tumour; but into this question I do not enter, because in such unusual circumstances it would be difficult to place any such expression as a proof that undue force had been employed under a mistaken notion of its nature. Under these circumstances we must accept the case simply as one where the womb has been separated from the living body, and here we must endeavour to find out how such an occurrence could take place.

Let us, therefore, further consider in what manner the womb can be torn from the body during or after labour. If the mouth of the womb be not properly expanded and

(To be continued.)

* Regina *v.* Popplewell.

rigid, and the forceps introduced within, and then traction be made, it is possible to conceive that, if the pelvis be large enough to allow the head to descend with the extra thickness of the womb round it, the whole might be drawn out together, and, if sufficient force be used, that the vagina might be torn off. But in this case, of course, the child would be covered by the womb. This accident might also occur if the forceps passed outside the womb, and so draw both down together within its grip; and still more, if the blades passed through the walls of the vagina at its junction with the womb. When the womb has expanded over the head, this cannot occur; nor do I find a record of any case where the uterus has been brought away after the severest traction by the forceps. It has been injured, but not drawn down, being prevented apparently by the close contact of the head to the bones of the pelvis.

The womb can also be removed from the vagina after inversion. Such cases occur from time to time by ignorant persons pulling at it, and in some instances recovery has taken place. But here the womb would be inside out, and would itself afford a hold to pull at.

Again, another mode by which we can imagine the womb to be detached from the body is by forcible attempts to push the hand into the womb while the mouth is firmly closed, whereby sufficient tension may be put on the vagina as to rupture it, and then on the ligaments; but such a mode would require very great force, such as would be apparent to by-standers. The force required could be tested on the dead body. To effect it, at least the hand and the forearm would have to be introduced.

Again, another way has been suggested—namely, during the removal of an adherent placenta. Here again the arm must be introduced, and the walls of the womb seized hold of in some kind of way. But this is not an easy matter; because it is next to impossible to drag it down from within so as not to invert it. The os and cervix are generally in a flaccid state, simulating the vagina, so that it is almost if not quite impossible to get a hold sufficient to retain it during traction. Then the uterus must be brought out before the vagina would entirely give way, and the force employed mostly at the end of the operation. This would be such a formidable affair that, supposing it possible, it is clear no man in his right senses could get half-way through it without consciousness of his mistake.

But it would be easier to do it if the vagina were largely ruptured previously to the passing-in of the hand; no doubt it could be seized more readily, and abstracted without so much force. Here again the hand and arm must be introduced; and as there is already a greater or less lesion of the tissues, it indicates a greater or less amount of tenderness of the tissues, and is not widely different from the supposition thrown out at commencement, excepting that the ligaments are torn by hand-traction instead of by the natural forces. And the relative amount of either force required depends on the amount of previous laceration; and therefore the amount of blame to be thrown on the practitioner depends on the same conditions—in all cases very much less than where no previous laceration had existed.

I do not mention traction on the cord as a means of detaching the uterus, because it is clear that the funis would give way long before any impression was made on the integrity of the tissues.

In the case under consideration, it is clear that the first mode will not give an explanation, for the womb was not over the child at birth. Neither can we admit the second, because the womb was not inside out. Neither can we recognise the third—that of pushing it off to introduce the hand,—because the arm, as far as we can hear, was not introduced sufficiently far; and, secondly, the dangerous state of the woman, after the child was born, points to a time before the delivery of the placenta for the reception of the injury. For this latter reason we must, I think, remove the fourth mode from the causes likely to produce the accident—at least as regards the principal injury. If manual traction had been used, it must have been of the slightest; for there was no evidence of it, beyond the fact that the patient asked time to be given her—a very common request after and during severe labour.

In the above remarks, I have not taken into account the facility for rupture given by tender and feeble tissues. There was evidence to show that the patient, at least, was not in the most tonic state; and that, with a small cavity in the lung, there were many adhesions of the pleura. Her rapid decomposition precludes one from knowing accurately what influence this had upon the rupture. Be this as it may, we know the womb was detached, and that in the natural forces we find a certain explanation of a large proportion of the laceration, and a high degree of probability that the remainder was likewise accomplished by the same means; while we have, to my mind, a more difficult task if we suppose that the remainder was forcibly detached by the medical attendant under the circumstances; and this difficulty is increased by the fact that he was shown to have been careful and attentive in the case, perfectly sober at the time, having been engaged for many years in active midwifery, and having performed most of its operations; these things rendering it less probable that he would have done so wild a thing as that he was accused of. The history of the case indicates to my mind that a rupture of the vagina had occurred previous to the use of the forceps—in fact, being the cause of the symptoms requiring their employment; that the laceration was increased or nearly completed during their use, aided much by their slipping, so that by the time the child was born the severance was nearly complete; that of the blood which then flowed, some had been detained in the peritoneal cavity, and some was freshly flowing (this will readily account for the stain of the peritoneum); that the pressure on the abdomen and the traction on the cord completed the severance. The congestion of the broad ligaments alluded to at the trial is a natural appearance; and if it were not, it would rather point to the existence of an injury some time prior to death, than one a few minutes before. The separation of the womb in the living without inversion is very rare, of which it is difficult to find an authentic instance. It is not therefore a case to prejudge; for if, as some have supposed, it is a very easy thing to imagine it done by improper force, how has it happened that it is so rarely recorded? It is manifestly our duty to examine carefully so rare an instance; and, where two powerful forces are present—uterine pains and the hand—to closely scrutinise the evidence, recollecting that the womb has an energy quite as formidable, if employed adversely, as it is valuable and indispensable, when exerted rightly.

St. Thomas-street, S.E., Jan. 1869.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

TWO CASES OF STRANGULATED HERNIA; WITH THE POST-MORTEM APPEARANCES.

THE practice of opening the sac in operating for strangulated hernia is much more frequently adopted at some hospitals than at others. At St. George's Hospital it is generally done, and the operation without opening the sac forms the exception to the rule. One reason given for this practice is, that the condition of the bowel can in that way be ascertained; but a more important reason, and one lately much insisted upon by Mr. Henry Lee, is, that the fluid contents of the sac (if this be not opened) are returned together with the intestine into the abdomen. These contents consist often of lymph, blood, and serum, in which various alterations are taking place. Now it is well known that decomposing fluids are absorbed with great rapidity from a serous surface, especially if that surface be large. If any bloody fluid or lymph be contained in a hernial sac, and that sac be not opened, then when the bowel is returned the fluid is returned with it into the peritoneal cavity.

This fluid, mixed perhaps with decomposing blood, is looked upon by some as a fertile source of peritonitis, and great care is taken to remove it after the sac is opened in the operation for strangulated hernia. In two cases which occurred in St. George's Hospital two weeks ago these facts were particularly dwelt upon. In one of these, a patient seventy-five years of age, when the sac was opened a network of white lymph was seen forming a loose kind of inner sac; and in the other case, in which the taxis had been firmly applied, the sac contained a quantity of bloody fluid. The fluid contents of the sac were carefully removed in both these instances before the hernia was reduced, and the patients are both doing well. The following two cases illustrate the same point—namely, that a formidable source of mischief may exist within the sac itself; and if this is not opened, and sometimes if it is, fatal consequences may be caused thereby after the stricture is relieved. The first case is very peculiar and interesting from the fact of the *mucous* surface of the bowel having apparently been destroyed by the strangulation of the intestine, and the passage through the intestine having subsequently become almost closed by a process of cicatrisation. Mr. Leigh, surgical registrar, has obliged us with the notes.

CASE 1.—Margaret S——, aged thirty-five, a cook, was admitted into the Princess ward on the 28th of April, 1868, under the care of Mr. Henry Lee. The history she gave was that for about three years she had noticed a swelling in the left groin; but as it did not increase, and caused her no inconvenience, she thought nothing of it, and wore no truss. The morning before her admission she was seized with pain in the swelling and retching, and at 8 A.M. was first sick. She took aperient medicine, but without effect; and on the morning of the 28th, as the sickness and pain continued, she applied for admission.

On admission at 9 A.M., she complained of pain in the lower part of the abdomen and sickness. There was a femoral hernia of the left side, the size of a hen's egg, tense, tender, and without impulse; pulse 92; tongue coated. She was put to bed, and ice applied to the tumour, but soon after fæcal vomiting ensued.

At 1 P.M., as the symptoms of strangulation continued, it was determined to operate, and as the patient was unwilling to take chloroform, the operation was performed without it. Mr. Henry Lee made an incision about two inches long over the tumour, dissected down and opened the sac, being unable to reduce the hernia without so doing. The sac contained a small knuckle of intestine, very much congested, and about an ounce of bloody serum, and was adherent to the tissues around. The stricture was situated at the crural ring, and was exceedingly tight. After it was divided, the gut was returned. The wound was closed with silver sutures, and a pad and figure-of-8 bandage applied over it. She was ordered beef-tea and twenty minims of tincture of opium three times a day.

April 29th.—Passed a quiet night; pulse 96; free from pain.

May 1st.—The bowels have acted naturally twice during the night; pulse 92. The pad and bandage removed; wound healthy, discharging slightly. Ordered ordinary diet and one pint of porter.

The patient subsequently progressed favourably; the stitches were removed, and the wound granulated.

June 2nd.—The wound is now quite healed, and the patient supplied with a truss. The bowels are confined, and never act without medicine. Constipation still continued, so she was ordered some pills of extract of aloes and colocynth from time to time. She also complained of dull aching pain at times, when the bowels were confined, in the lower part of the abdomen, but was up and about with her truss on.

July 3rd.—About midday she complained of great pain in lower part of abdomen, became suddenly collapsed, and died at once.

At the post-mortem examination the next day, old adhesions were found in both pleuræ, and the lungs were very œdematous. The left side of the heart was contracted and empty; the right side contained a decolorised clot. The valves and structure of the heart were healthy. The intestines were much congested, and at the junction of the jejunum and ileum the gut for about an inch was of a dark slate colour, and was adherent to the iliac fossa. Above this point the gut was dilated, quite full, and its coats thickened; below, it was contracted and empty. At the point of adhesion the coats were much thickened by fibrous deposit, which materially constricted the calibre of the canal, so that water could only flow through it in a very small stream. The mucous surface at this point was firmly contracted by a process of cicatrisation after ulceration. The other abdominal viscera were healthy.

CASE 2.—Frederick C——, aged twenty-six, a labourer, was admitted into the Fitzwilliam ward on October 5th, 1868, under the care of Mr. Holmes. The history given was that he had been ruptured for about nine years, and had always worn a truss. The hernia used occasionally to come down, but could easily be returned. At 9 A.M. on the morning of his admission, he was at work with a truss on that did not fit him, when the hernia came down, and as he could not get it back, he came to the hospital. He had had pain in the abdomen, but no sickness before admission.

On admission, at 10.30 A.M., he complained of great pain across the lower part of the abdomen. He was somewhat cold; pulse 100; expression anxious. There was a scrotal hernia of the left side, about the size of an ostrich's egg, tense, tender, and without impulse on coughing. He was put to bed, and a bladder of ice applied to the tumour; but as the hernia remained in the same state, and fæcal vomiting set in, at 1 P.M. chloroform was given, and taxis applied, but without success. Mr. Holmes then made an incision about three inches and a half long, over the external ring, and opened the sac, which contained a large amount of small intestine, somewhat bruised, and considerably congested. The stricture was divided, and the intestine with considerable difficulty returned. The sac also contained some clotted blood, which came from a ruptured portion of the mesentery. The wound was closed with silver sutures, and a pad and figure-of-8 bandage adjusted over it. He was ordered beef-tea, and one grain of powdered opium immediately.

Oct. 6th.—There is a good deal of swelling of the scrotum; expression anxious; pulse 116. The recti muscles are very rigid, and he complains of great pain and tenderness over the lower part of the belly. About midday, the bandage, pad, and sutures were removed, and some sanious fluid escaped. A small conical pad was placed over the internal ring. Fomentation ordered.

7th.—The abdomen is distended with flatus; pulse 132, very weak and small. There is repeated hiccough and fæcal vomiting. A long tube was passed up the rectum, when some flatus escaped, and later in the evening a rue injection, but without relief. Wound gangrenous.

8th.—Is sinking. Pulse very weak, 112; skin clammy. The sickness and hiccough continuous. The rue injection repeated without relief.

9th.—Sank and died at 8 P.M.

At the post-mortem examination the next day, at 1.30 P.M., a gangrenous wound was to be seen on the left side of the scrotum; the tissues around were black, and infiltrated with air. In the upper part of the inguinal canal could be felt a swelling which resembled a hernia. The lungs were much congested, œdematous, and emphysematous along their free margin. The left ventricle of the heart was closely contracted; the right was dilated, and contained a decolorised clot. Its structure and valves were natural. The liver and kidneys were congested; the spleen small, shrivelled, and the capsule wrinkled. The intestines were much congested, and covered with varicose vessels. The upper half of the small intestine was distended with air and fæces; the lower half empty. At the junction of the two portions the gut was reduplicated on itself, and the two serous surfaces, where touching each other, were adherent. This knuckle of intestine was lodged in the inguinal canal, to which it was slightly adherent. Thus an almost complete obstruction was formed. On the mucous membrane at this part was a small ulcer. The mesentery corresponding to the strangulated portion was much bruised and ecchymosed, and there were some small clots of blood in various parts of the abdominal cavity.

ST. MARY'S HOSPITAL.

PROLAPSUS UTERI OF SEVENTEEN YEARS' STANDING CURED BY OPERATION.

(Under the care of Mr. NORTON.)

THE patient, whose case is appended, is at the present time—a year and a half after the operation—a milk-carrier

in London; and though the weights she bears are excessive, there has been no return of the disease, nor have there been any bearing-down pains. She continues in perfect health.

Mrs. M—— had laboured under the severe effects of an extensive prolapse of the womb since the birth of her last child, a period of seventeen years. She stated that she was unable to walk, or in any way to gain a livelihood, and that she was only free from pain when lying down.

On examination, the uterus was found altogether external to the vagina. It was much enlarged, thickened, and indurated, and around the os, and upon different parts of the vagina, were several small ulcerations. Pessaries of various forms had been used to support the womb, but without effect.

Mr. James Lane saw the patient with Mr. Norton, and it was determined that the operation which Mr. Lane had performed on several occasions should be adopted.

On the following Wednesday Mr. Norton removed an elliptical piece of the mucous membrane about three inches and a half in length, by two in breadth, from the vesical wall of the vagina. The cut margins were then brought together by means of ten silver-wire sutures, and the uterus returned to its normal position. The bowels were confined by opiates till the sixth day, and then relieved by castor oil. The vagina was syringed daily with warm water, and after eight days the sutures were removed.

Fourteen days after the first operation, Mr. Norton removed by a horse-shoe incision rather more than an inch of the mucous membrane of the posterior and lateral walls of the vagina, including the cutaneous margins of the fourchette. The denuded surfaces were now approximated as in the operation for ruptured perineum, and were firmly fixed by means of silver-wire quilled sutures. The projecting lips were more evenly adapted by a second row of wire sutures somewhat deeply placed. As on the previous occasion, the bowels were quieted by opiates throughout the week. The quilled sutures were removed after forty-eight hours, and the others in seven days. On the removal of the quilled sutures a few drops of pus exuded, and the parts around showed some little redness and induration, but these symptoms were relieved by a bread-and-water poultice.

Within a fortnight after the second operation the patient left the hospital entirely cured.

LONDON HOSPITAL.

THE USE OF CARBOLIC ACID.

AT this hospital, Mr. Maunder has employed carbolic acid under various circumstances,—in the treatment of large chronic abscess, in acute abscess of bone, after the removal of mammary tumours, in incised operation wounds, (as, for instance, hernia and ligature of the arteries), and as a dressing after amputations, both primary and secondary. The most important and interesting case in which Mr. Maunder used the drug was one of ligature of the left common carotid artery, in a private patient, the subject of three surgical aneurisms. The ligature having been soaked in a strong solution of acid, was cut short, a weak solution was poured into the wound, and all the sponges and instruments employed in the operation were dipped in the acid solution. The wound was closed over the ligature, and thick pads of lint saturated with carbolic oil were adapted to the wound, and the outer pad was occasionally moistened with the oil. Six days subsequent to the operation the wound was dressed with carbolic putty, when neither swelling, nor redness, nor secretion was observed. The wound closed over the ligature, and in less than a month the patient went to the seaside. Mr. Maunder is of opinion that carbolic acid tends to prevent and arrest suppuration, to prevent decomposition in abscess cavities, to prevent local inflammatory action, and general inflammatory or traumatic fever. Thus, he thinks, the healing process is expedited, and the dangers of accident and operation wounds greatly diminished.

WESTMINSTER HOSPITAL.

THE USE OF CARBOLIC ACID.

MR. HOLT finds carbolic acid, as applied in accordance with the directions given by Mr. Lister, a very valuable remedy. He has tried it in a large number of cases, and although it does not always succeed, he believes this is more from failing health on the part of the patient than from any defect in the remedy. In the main, however, it can be relied upon. Indolent, deep abscesses, sinuses, unhealthy ulcers, and such like, are much benefited by its application, and in recent operations, if the directions are thoroughly carried out, it certainly promotes immediate union.

GREAT NORTHERN HOSPITAL.

RETENTION OF A FARTHING IN THE FOOD PASSAGE OF AN INFANT FOR SIX MONTHS.

A CHILD seventeen months old was brought to this hospital in June last, having, it was said, managed to swallow a farthing. It did not, however, show signs that any article so unsuited to digestion had been taken. The house-surgeon, Mr. P. D. Hopgood, prescribed as much solid food as possible, and small doses of castor oil, but the farthing was not forthcoming, and the patient disappeared. A few days ago, however, the child was sick after taking an unusually heavy meal, and in the midst of the vomited matter a green mass was seen, which was the farthing, much covered with verdigris. The mother said that the child had seemed to suffer occasionally from pain, had coughed a little, and lost flesh. Where was the farthing during these six months?

Provincial Hospital Reports.

LIVERPOOL SOUTHERN HOSPITAL.

FRACTURE OF THE SPINE WITH DISPLACEMENT; REDUCTION BY MEANS OF PULLEYS; RECOVERY.

(Under the care of Dr. WOLLASTON.)

J. M——, a clerk, aged thirty-six, while in a state of intoxication, walked over one of the pier-heads, and fell on to the river bed below, a distance of about forty feet. In this state he remained for four hours, until he was roused by feeling the advancing tide. He was hoisted up by ropes, and brought to the hospital.

On admission, Nov. 18th, 1868, he was unable to stand, and complained of intense pain from the toes of both feet up to the hips, and also of a feeling of stiffness in the back. On examining the back there was considerable ecchymosis of the lower portion of the dorsal region, and the eleventh dorsal vertebra was displaced, and protruded fully an inch and a half from its normal position. No crepitus could be felt. Hyperæsthesia of the lower extremities existed in a most marked degree, a breath of air, or a touch of a feather, causing the most excruciating agony. Without any stimulus paroxysms of pain came on every three or four minutes, commencing at the base of the toes. There was neither paraplegia nor priapism.

Treatment.—The patient being placed on a mattress on the floor, chloroform was administered to its full extent. The shoulders were then securely fixed, and the pulleys applied to both thighs. During extension, the hand, placed over the projecting portion of the spine, felt the displacement gradually disappear, but without crepitus or jerk. Hot water bottles were applied to the feet, a dose of tincture of opium given, the catheter passed, and the patient directed to remain on his back.

Nov. 19th.—Has passed a restless night, the attacks of pain being most intense, and with only short intervals. Although he has been tossing from side to side, no displacement has occurred, but a slight "dip" is felt at the seat of injury. One-third of a grain of morphia was injected into the calf of one leg, and the legs elevated on pillows; catheter passed. Towards evening, as NO relief was experienced, the injection was repeated in the other leg, and with immediate benefit. Temperature: upper extremity, 97°; lower, 98·5°. Pulse 98.

20th.—Feels better, and has slept for some hours; pain in feet and legs not so intense, unless touched; abdomen tympanitic, and he is unable to pass flatus; little or no

pain at seat of injury; tongue coated; great thirst, and constant vomiting. Ordered iced milk *ad lib.*; injection of morphia repeated; catheter three times a day. The urine is loaded with mucus, and slightly ammoniacal. Temperature: upper, 97·6°; lower, 98·4°. Pulse 96. Respirations 20.

21st.—Feels easier; still sick. A turpentine-and-oil enema was given last night, and repeated this morning, but without effect. To discontinue the morphia, and take only soda water and milk, with ice. Temperature: upper, 99·2°; lower, 96·8°. Pulse 98. Respirations 18.

22nd.—About the same; bowels acted, but he is not aware of it; vomiting still continues; towards evening pain more severe. Hypodermic injection repeated; ordered a purgative. Temperature: upper, 99·8°; lower, 96·4°. Pulse 90. Respirations 18.

23rd.—Bowels freely moved, and patient expresses himself as feeling much better; hyperæsthesia diminishing; no sickness; tongue clean; complains of a feeling of numbness in lower extremities. Temperature same as yesterday.

28th.—Going on well; a little vomiting this morning, which was relieved by an enema; urine very alkaline. Ordered dilute nitro-hydrochloric acid, chop, and a pint of ale; placed on a water bed, as there is a tendency to sloughing over the nates; spine firmly strapped with emplastrum Robirans.

Dec. 4th.—He has daily continued to improve. The hyperæsthesia has disappeared, with the exception of a little at the outer side of each leg. Has passed urine to-day for the first time since the accident. Has been sitting up in bed, and only complains of what he calls a "galvanic" sensation in the legs. Bowels obstinate, requiring the administration of purgatives.

23rd.—Got up to-day, and was able to move about the ward with assistance. Legs feel rather numb. From this date he rapidly improved, and was able to walk about without assistance; the legs regained their proper feeling, and his only complaint is a slight feeling of stiffness in the back when he stoops to pick an object from the floor.

On January 1st he was discharged cured, with only a very little thickening at the seat of injury.

Dr. Wollaston remarks:—This case is interesting in many respects. Of course there was extensive fracture of the spine, for we cannot think it possible for simple dislocation to exist in this portion of the column; and it shows the necessity for having recourse, at an early period, to those measures that will as far as possible remove all pressure from the cord. In this case we may fairly infer, judging from the amount of deformity, that the pressure must have been very great, though probably no actual rupture took place. What the consequences might have been had this pressure been allowed to continue, we can easily imagine. Knowing the fatal result of many of these cases, and the distressing nature of the suffering, both to the patient and to those in attendance, we think it justifiable—in most if not all such accidents—to follow some such treatment as that recorded in this instance. The sickness, which was a prominent symptom in the early stage, was probably partly due to the chloroform; but also in some measure, we think, to the use of the subcutaneous injection of morphia, a result we have frequently seen follow the use of the drug when exhibited in this manner.

Reviews and Notices of Books.

Clinical Lectures on Diseases of the Liver, Jaundice, and Abdominal Dropsy. By CHARLES MURCHISON, M.D., F.R.S. London: Longmans. 1868.

THERE was a want in medical literature of a new work on Diseases of the Liver,—clinical in its character, comprehensive in its treatment of the subject, yet free from detail, and conveying information in a clear, concise style, which would render it easy to read and to remember. This want has been ably supplied by Dr. Murchison, whose work—consisting largely of lectures which have appeared in THE LANCET—cannot fail to take its place at once as a standard authority on the diseases of which it treats.

The grand characteristic of these lectures is their essentially clinical nature, the principal objects kept in view being accurate diagnosis and successful treatment. The descriptions of symptoms bear the impress of extensive and close observation at the bedside; and the remarks on diagnosis show, in addition to this, great discriminating power.

The first six lectures are devoted to enlargements of the liver, which are divided into painful and painless; and the remaining six to contractions, jaundice, fluid in the peritoneum, hepatic pain, gall-stones, and enlargement of the gall-bladder. Every disease considered is illustrated by a number of interesting and carefully reported cases.

Dr. Murchison divides abscess of the liver into two varieties—pyæmic and tropical; the former usually many in number and small, the latter generally single, and often attaining a large size. He does not agree with Dr. Budd in considering *true tropical abscess* to be due to purulent absorption from the ulcerated colon in dysentery, while he points out that *pyæmic* abscess may as often follow ulceration of the intestine in India as in this country, and consequently be more frequent there on account of the prevalence of dysentery.

He recognises two forms of jaundice, one in which there is a mechanical impediment to the flow of bile into the duodenum, and another in which no such impediment exists. In opposition to Budd and Harley, he believes that the bile pigment is formed in the liver as well as the biliary acids. In support of this view he adduces the experiments of Müller, Kunde, Lehmann, and Moleschott, who have repeatedly extirpated the liver of frogs, and have invariably failed to find a trace of either acids or pigment in the blood, urine, or tissues. He also brings forward cases in which the secreting tissue of the liver has been for the most part or entirely destroyed, and no bile secreted, yet without any jaundice being the result. His theory of the production of jaundice is the following:—He believes that in health a portion of both the biliary acids and pigment is absorbed into the blood, and then transformed into products which are eliminated by the lungs and kidneys. But in certain morbid states this normal metamorphosis does not take place, and the absorbed bile circulates with the blood, and stains the skin and other tissues. Jaundice may also result from too much bile being absorbed to undergo the normal transformation. In this case there is an excessive secretion of bile, usually combined with constipation, which prevents its being carried off by the bowels.

At the present time, when there is so much discussion concerning the action of mercury, what Dr. Murchison has to say on the subject will be read with interest. "Mercury and allied purgatives," he says, "probably produce bilious stools by irritating the upper part of the bowel, and sweeping on the bile before there is time for its absorption. Irritating articles of food will often produce the same effect. Calomel is of unquestionable utility in congestion of the liver; but if it acted, as is usually argued, by stimulating the liver to increased secretion, it might be expected to increase the congestion rather than diminish it. It is quite possible, however, that the irritation of the duodenum by purgatives may be reflected to the gall-bladder, and cause it to contract, and that the evacuation of this viscus may account in part for the increased quantity of bile in the stools."

Dr. Murchison's book, it cannot be doubted, will have the effect of lighting up many dark places of practice, and conveying clear conceptions of diseases of the liver where all had been vagueness before. There is a widespread tendency

to ascribe any obscure symptoms, more especially if they are referable to the digestive system, to hepatic disease; the puzzled "diagnostiker" is too prone to seek refuge behind the great shelter of "disordered liver." Such a book as Dr. Murchison's is eminently calculated to put an end to this, and we earnestly recommend its careful study.

The Science and Art of Surgery, being a Treatise on Surgical Injuries, Diseases, and Operations. By JOHN ERIC ERICHSEN, Senior Surgeon to University College Hospital, and Holme Professor of Clinical Surgery in University College, London. Fifth Edition, enlarged and carefully revised. Illustrated by 600 engravings on wood. Two volumes. London: Walton. 1869.

THE appearance of Mr. Erichsen's well-known and standard work on Surgery in two volumes will be hailed with satisfaction by those who object to a ponderous and unwieldy book; whilst the additional space thus secured has enabled the author to make emendations throughout the work, and to add some new matter on subjects not hitherto included in it. The number of illustrations also has been augmented, and, in many cases, new and improved ones have been substituted for old friends; and thus the work bears in every feature a stamp of novelty and freshness which will commend it to those who are making its acquaintance for the first time, whilst those who have found it a safe guide and friend in former years will be able to refer to the new edition for the latest information upon any point of surgical controversy. In writing some parts of his work Mr. Erichsen has availed himself of the assistance of some of his colleagues and former pupils. Thus the chapter on Diseases of the Eye, extending to thirty-six pages, has been supplied by Mr. Streatfeild, and gives a brief but sufficient account of the operations about the eye, and of the ophthalmoscopic examination of that organ. Again, the chapter on Syphilis, which, with Mr. Berkeley Hill's assistance, has been entirely rewritten, as it now stands gives the most modern views as respects the pathology and treatment of this important disease. Due acknowledgment is made also, in the preface, of the assistance given by Mr. Alexander Bruce in the more strictly pathological portion of the work, and especially in the chapter on Tumours, which we may commend to our readers as containing a *résumé* of our present knowledge of new growths.

Mr. Erichsen has not been sparing of his own labours, however, since every page shows careful revision, and much additional matter has been added on subjects of recent interest. As examples of the former, we may note that the chapter on Dislocations has been revised, and some discrepancies rectified, and that the important subject of Fractures has been considerably improved both in the letterpress and illustrations; also, that the practice of acupressure for the control of hæmorrhage is fully discussed and contrasted with the ligature. The author, very rightly we think, declines to be bound by any one method of practice, and believes that the ligature, acupressure, or torsion may each be advantageously employed in suitable cases.

The subject of Aneurism has always been a favourite with Mr. Erichsen, and the chapters on this disease have undergone careful revision, the somewhat numerous cases of distal ligature for aneurism of the root of the neck which have recently occurred, being duly noted. The chapter on Excision of Joints has also been revised, and has several fresh illustrations, among which we notice with satisfaction the single straight incision for removal of the head of the humerus, which, when placed close to the coracoid process, gives most satisfactory results.

The copious index with which the work concludes is not one of its smallest or least admirable features; and in the present edition this has been made more useful than before by the addition of the derivations of many surgical terms, which will be of great service to the student. The type and general get-up of the work are most satisfactory, and reflect great credit upon both author and publisher.

The Pharmacopœia of India. Prepared, under the authority of her Majesty's Secretary of State for India in Council, by EDWARD JOHN WARING, M.D., M.R.C.P. Lond., Surgeon in H.M. Indian Army; assisted by a Committee for the purpose. India Office, 1868. London: W. H. Allen and Co., 13, Waterloo-place, Publishers to the India Office.

WE should sooner than this have noticed the "Pharmacopœia of India," which is really a most creditable work. To members of the profession in India it will prove invaluable; and to those at home it is not without interest, as it contains much information on materia medica and therapeutics which is really not easily to be acquired in any other single work.

The peculiarity of the diseases of India, its richness in many articles of the materia medica, the particularly valuable observations in this department of many Indian practitioners, and the peculiarity of the climate, all indicate the necessity of a special Pharmacopœia for India. Hitherto the Bengal Pharmacopœia has been the authority; but, twenty-four years having elapsed since it was issued, something more was called for than a mere reissue of that work. The Secretary of State for India, accordingly, about three years ago, committed the duty of preparing a Pharmacopœia to a Committee composed of the following gentlemen: Inspector-General of Hospitals Sir J. Ranald Martin, C.B., F.R.S., late Bengal army (president); Sir William O'Shaughnessy Brooke, M.D., F.R.S., late Bengal army; Alex. Gibson, Esq., late Bombay army (since deceased); Daniel Hanbury, Esq., F.R.S., F.L.S.; Thomas Thomson, M.D., F.R.S., late Bengal army; John Forbes Watson, M.D., F.L.S., late Madras army; Edward John Waring, M.D., M.R.C.P. Lond., F.L.S., Madras army (editor).

The work is based upon the British Pharmacopœia, and includes all its officinal preparations. But a chief object of the Committee has been to incorporate as much information as possible concerning the principal drugs and medicinal plants of India. This is done in the account of the action and therapeutical uses which follows the description of each article; and very valuable matter and bibliographical reference in this same direction is added in an appendix. On the strength of much special information acquired from officers serving in India, many substances have been admitted into the Indian Pharmacopœia which are not to be found in our own. They are distinguished by an asterisk. It is hoped that in this way the study and use of the indigenous drugs of the country will be favoured.

Not only is the mere materia medica of the work richer than that of our own Pharmacopœia, but the whole conception of the book is somewhat different, and the difference is often in favour of the Indian one. There is more of therapeutics in the work. And, as far as we have been able to see, the difficult and important duty of stating the therapeutic uses of drugs has been well and judiciously discharged. It is evident from this portion of the book that Indian therapeutists, as well as English ones, are prepared to reconsider all the great doctrines of this department of medicine, and are open to the admission of any new light or new medicine that good observation may supply. We anticipate great advantage from an independent Indian Pharmacopœia, based upon our own. Great praise is due to the Committee who have executed this undertaking, and especially to the editor, Dr. Waring.

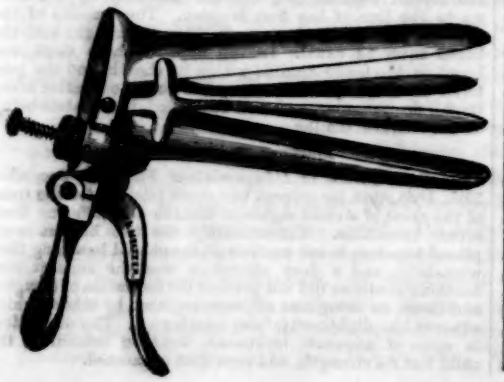
New Inventions
IN AID OF THE
PRACTICE OF MEDICINE AND SURGERY.

DESCRIPTION OF A NEW SPECULUM.

BY ALFRED MEADOWS, M.D.

THE annexed drawings represent a new form of vaginal speculum, which has been made for me by Messrs. Mayer and Meltzer, and which, from the trials I have made of it, will, I believe, be found practically more convenient and useful than any instrument of the kind with which I am acquainted. The obvious and undoubted advantage of the ordinary bivalve speculum over every other consists in the facility of its application. It can be much more easily introduced than the common Ferguson's speculum—or, indeed, than any other. The flat, duck-bill shape of the blades, if applied between the two parallel labiæ in their long diameter, admits of their introduction with the utmost facility; and, as everyone knows, the whole difficulty in using the speculum is at the external orifice. When that is once passed, the rest is easy enough; and this is painful or otherwise according to the amount of force directed against the sphincter vaginæ, and its consequent resistance. The shape of my instrument (Fig. 1) obviates the

necessity for the employment of force. If its flat end is applied in the long direction of the vulva, it glides between the labiæ as easily as possible; no spasmodic resistance, and therefore no pain is experienced. When it is introduced as far as necessary, a quarter turn is made, so as to bring the handles to the perineum. These are then approximated, by gentle pressure, to any required extent, in order that the blades may diverge, and a view of the parts be obtained. Here the principal feature of this instrument comes into play. In the ordinary bivalve speculum, when the blades are opened the vaginal folds prolapse between them so completely that nothing beyond can be seen, and the instrument is often practically useless. To obviate this I have had a narrow blade attached to either side, as is shown in Fig. 2. These keep the lateral vaginal folds well apart, so

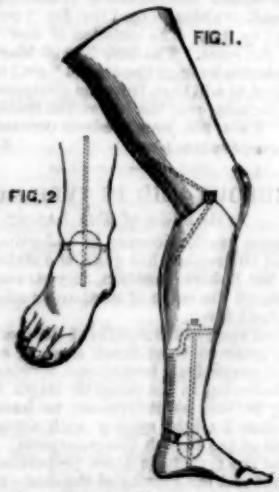


that not only the os and cervix can be readily inspected, but the vaginal walls also can be seen, between the blades. The little screw at the handle keeps the blades fixed *in situ*. All the blades diverge at the same time, and all collapse together, the two narrow side blades falling spontaneously just within the upper and lower blades, so as to make the instrument as compact as possible. All the edges are rounded and smooth, to avoid any nipping of the vagina; and if the instrument is gradually withdrawn at the same time that the blades collapse, even this simple accident is made impossible. From my experience with many different kinds of specula, I can truly say that I have found none so easy to use, and so perfectly satisfactory for the object in question, to say nothing of its greater durability than the common "Ferguson," and its adaptability to every size. Though I have only used it for the vagina, I can readily imagine that a smaller size would be equally valuable for examinations of the rectum. I may add that Fig. 1 represents the instrument closed, with the two side blades partially hidden by the upper and lower blades, and with the handles folded back upon the blades, for convenience of carriage, by which it is made to occupy a very small space. These are, of course, unfolded, as in Fig. 2, when the instrument is to be used.

NEW ARTIFICIAL LEG.

WE have recently seen an artificial leg, invented by Mr. Heather Bigg, in which the principle of construction is so ingenious as to render it well deserving the attention of surgeons.

Its distinguishing feature is the peculiar formation of the ankle-joint, which consists of two hemispherical cavities having lateral notches (Fig. 2), on which, by means of two wooden pegs, a solid fall rests, forming the centre of the joint. These notches have beds of india-rubber, a quarter of an inch thick, which, by their resilience, give lateral motion to the joint. Through the centre of the fall is a cylindrical aperture for the passage of a cord or tendon (Fig. 1), which, being fixed by its upper extremity to an



india-rubber collar with regulating screw in the ankle-joint of the leg, and at its lower end to the sole of the foot, gives fixity to the joint somewhat like the ligamentum teres in the human hip, and, similarly, admits of lateral, rotative, and antero-posterior movements. A helical spring, through which a catgut cord passes, acts as the false tendo Achillis, and gives both motion and stability to the joint in walking.

The knee is moved by an india-rubber cord passing on a pulley over the axis of the joint, and which throws the leg forward in walking.

From the simplicity of its construction, it admits of being the lightest and strongest leg yet invented; whilst, from the absence of friction, it can scarcely ever get out of repair.

THE NEW SYDENHAM SOCIETY.

To the Editor of THE LANCET.

SIR,—As the individual books of the New Sydenham Society are not in the public market, it might seem that any complaint respecting them should be addressed to the Committee, and not to a public journal. But as I have failed to get redress for myself and my fellow members through private suggestion, I am compelled to appeal to you.

I am not prepared to say that the books successively issued by the Society are less accurate than reprints and translations are apt to be; but they are not more accurate; and the Committee has it in its power to give the series an unrivalled accuracy, by communicating to the members, annually or otherwise, the errata which other eyes than the editor's have seen. I have occasionally furnished such lists of errata as have occurred to my observation; doubtless other readers have seen some which I have not seen; but if any have forwarded the corrections to editor or secretary, they have not got beyond his eyes,—if so far.

The first volume of Lancereaux on Syphilis has been in my house not many days. Allow me to state a few of the results of turning over the first sheet. The bibliography (p. 2) is useless, through the carelessness of the translator. Had it been simply transferred by the printer it would have been more intelligible. Where the compiler has translated English or German into French, for the benefit of his French readers, the French is left as though it were part of the title; the explanatory notes are sometimes translated, sometimes left untranslated, sometimes "half and half." "Le Même" appears as the author of several books, and "Anonyme" of one. I have not time to enumerate the press errors. So also with the bibliographical notes in the succeeding pages. "Judicem" for indicem; "treaty" for treatise. And who is the "Pline" who writes on natural history? and the "Celse" who writes on medicine? Now for the text. Hippocrates called condylomata "fics" (p. 11); for "altuis" read "altius" (p. 13); for "occalescit" read "occallescit" (p. 13). The omission of one "l" alters the meaning of the word. The first line of Martial's epigram (p. 15) is evidently wrong; the second "est" should be "et."

It is but just to add that, from the glimpses I have had of the book in turning over the leaves, the translation is good.

I am, Sir, your obedient servant,

Stoke Newington, Jan. 11th, 1869. R. H. COOKE.

SULPHUROUS ACID IN TYPHOID FEVER.

To the Editor of THE LANCET.

SIR,—I have much pleasure in endorsing, as far as my experience of the remedy has gone, the statement made by my friend, Mr. Robert Hamilton, in your impression of the current week, of the value of sulphurous acid in the treatment of typhoid fever.

Being called upon in the months of October and November of the past year to treat three cases of enteric fever, in persons aged respectively twenty-one, seventeen, and fifteen years, and believing in the parasitic origin of the disease, it occurred to me, as it appears to have done to Mr. Hamilton, that I might employ with advantage the sulphurous acid of the British Pharmacopœia. Accordingly, I administered the remedy in doses proportionate to the age of the patient and the gravity of the case; and I am bound to admit, with a success far exceeding my most sanguine expectations. The drug, as pointed out by Mr. Hamilton, appears to modify the character of the fever, and most undoubtedly shortens its duration, convalescence having been established in my cases from the seventeenth to the twenty-first day from the commencement of the attack. The effect of the acid was most marked on the alvine evacuations, altering the appearance and altogether removing the sickly, disagreeable odour usually given off from them. I have also given the remedy in a case of variola, and with a result equally favourable.

With regard to the *modus operandi* of the drug in the treatment of enteric fever, this, I apprehend, if the fungus theory of the disease be accepted, is sufficiently evident, and requires no elucidation from me; for we all know, from daily observation and experience, that the particular form of sulphur at present under consideration is highly destructive to vegetable life, whatever form it may assume.

I would, with Mr. Hamilton, urge on those gentlemen who may be called upon to treat cases of enteric fever, to give the drug a trial, and report the result in the pages of THE LANCET.

I am, Sir, your obedient servant,

PODMORE W. JONES, M.D.,
Late Hon. Physician to the Liverpool Dispensaries.

Liverpool, January 11th, 1869.

Foreign Gleanings.

TREATMENT OF CATARACT BY PHOSPHORUS.

M. TAVIGNOT, a well-known and much esteemed Parisian oculist, has lately published, in the *France Médicale*, a series of cases which would go far to prove that frictions on the forehead with phosphorated oil, and instillations of the same into the eye, may contribute to the melting away of the hardened lens or capsule, and the restoration of sight, without the usual operation. These cases are worthy of attention, and should be read by all those who take an interest in ophthalmology.

CRIES OF A FŒTUS IN UTERO.

The *Scalpel* states that Dr. Dubreuilh, of Bordeaux, had under his care a girl of sixteen, who, towards the end of gestation, was seized with eclampsia. Chloroform was used, and a very small male child extracted. The breech of a second child now presented, and, just as the waters broke, the persons present heard the cries of the child, as if they issued out of a box, and they continued until the delivery was effected by the feet. The cries were heard at the moment when the accoucheur pushed up the breech to seize the feet. Air had probably then penetrated into the uterus, which was not quite filled by the second fœtus, and the latter, having inspired it, began to cry.

AMPUTATION OF THE LEG ABOVE THE MALLEOLI.

Dr. Guyon brought, on the 12th of August last, a patient before the Surgical Society of Paris with a good stump. The surgeon makes an incision in front, three fingers' breadth above the malleolus, with the *concavity* downwards, and the incision is continued along the inner part of the leg, in the direction of the malleolar axis. When the knife has reached the upper extremity of the malleolus, the incision is carried in a slightly oblique direction, until it reaches the level of the sole of the foot at the lower extremity of the os calcis. The surgeon then re-ascends with his knife, on the outer side of the leg, to the point where the incision began. An elliptical cut is thus obtained. The tendo Achillis should then be separated from the calcaneum, the lateral tendons cut, and the flap may be detached up to the line of the first incision. The muscles of the anterior part of the leg are lastly cut through, and the bones sawn as usual. In the flap, which is thick and broad, is the tendo Achillis within its sheath, and the posterior tibial artery. The stump has turned out, after seven weeks, firm, regular, and well cushioned, the cicatrix being on the front of the leg.

BLISTERS IN CHILDREN.

Dr. Botti states, in *L'Imparziale* of Florence, December 19th, 1868, that he ordered two small blisters for the front of the chest of a child eighteen months old, suffering from severe bronchitis. Unfortunately the two blisters were placed too close to one another (it is not said how long they were left), and a deep ulceration was the consequence. Soothing poultices did not prevent the formation of sloughs; and these, on being cast off, were replaced by others, which adhered like diphtheritic false membranes. The ulceration, in spite of adequate treatment, went on extending, the child lost its strength, and soon died exhausted.